

A detailed cross-sectional diagram of a multi-layered structure. The structure consists of several horizontal layers. At the top, there is a layer labeled 36, followed by a layer labeled 34. Below these, there is a layer labeled 28, which is further divided into sub-layers 6, 4, and 2. A layer labeled 31 is shown below 28, with a vertical distance G4 indicated between them. Below 31 is a layer labeled 30, with a vertical distance G1' indicated between them. At the bottom, there is a layer labeled 32, with a vertical distance T' indicated between it and 30. The structure is supported by a base layer labeled 24, which is divided into sections 8, 12, 16, 20, 22, and 26. A layer labeled 18 is shown below 24, with a vertical distance H indicated between them. A layer labeled 14 is shown below 18, with a vertical distance G4 indicated between them. A layer labeled 20 is shown below 14, with a vertical distance G1' indicated between them. A layer labeled 22 is shown below 20, with a vertical distance T' indicated between it and 20. A layer labeled 26 is shown below 22, with a vertical distance H indicated between them. A layer labeled 28 is shown below 26, with a vertical distance G4 indicated between them. A layer labeled 30 is shown below 28, with a vertical distance G1' indicated between them. A layer labeled 32 is shown below 30, with a vertical distance T' indicated between it and 30. The structure is supported by a base layer labeled 24, which is divided into sections 8, 12, 16, 20, 22, and 26. A layer labeled 18 is shown below 24, with a vertical distance H indicated between them. A layer labeled 14 is shown below 18, with a vertical distance G4 indicated between them. A layer labeled 20 is shown below 14, with a vertical distance G1' indicated between them. A layer labeled 22 is shown below 20, with a vertical distance T' indicated between it and 20. A layer labeled 26 is shown below 22, with a vertical distance H indicated between them. A layer labeled 28 is shown below 26, with a vertical distance G4 indicated between them. A layer labeled 30 is shown below 28, with a vertical distance G1' indicated between them. A layer labeled 32 is shown below 30, with a vertical distance T' indicated between it and 30.

A cross-sectional diagram of a device assembly. At the base are four black rectangular blocks labeled 38, 14, 16, and 26. Above them is a thin layer 24, followed by a thicker hatched layer 25. A dashed horizontal line indicates a level M at height H from the bottom. The top surface consists of a dotted material 18 and a triangular hatched material 2. A central channel contains a white rectangular component 40. To its right is another white component 42, which has a curved profile 44. An angle α is shown between the interface of layers 24 and 25 and the vertical. A vertical dashed line marks the center of the assembly. Other labels include 3, 48, and 50.

A perspective view of a rectangular block 80. The top surface 51 is curved, rising towards the edges. A small rectangular feature 24 is located on the side of the block. A dashed line indicates the extension of the block's base.

FIG. 3A

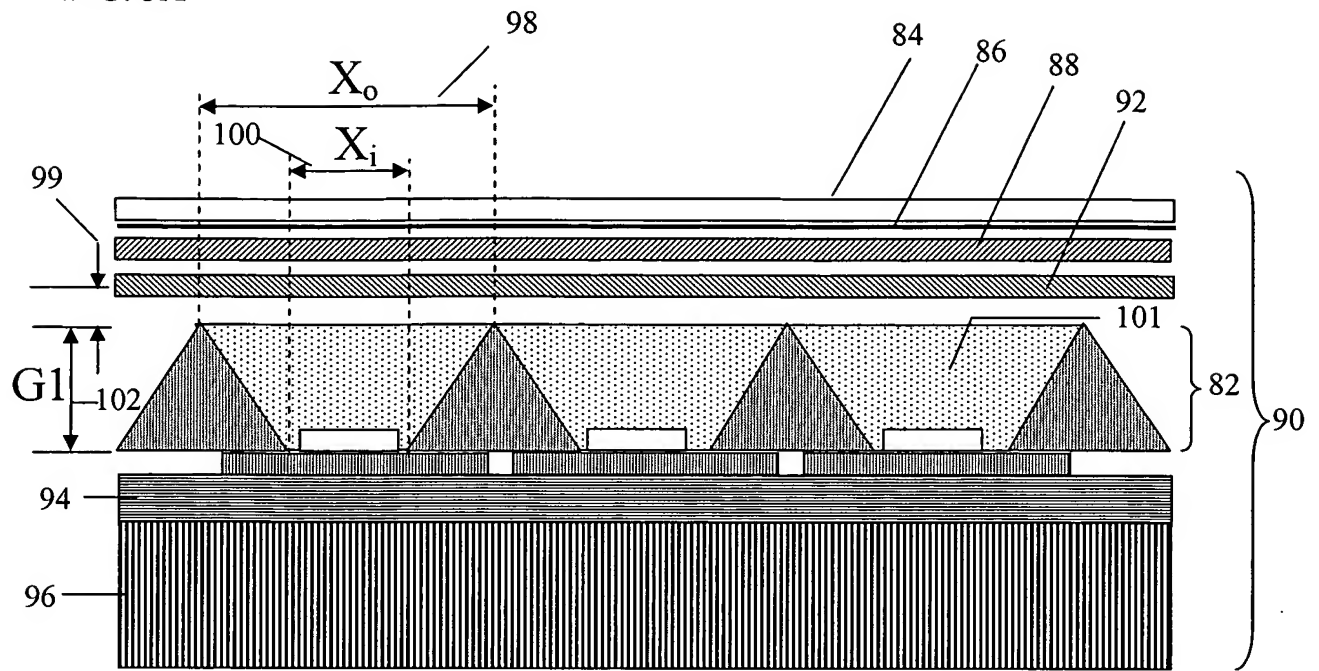


FIG. 3B.

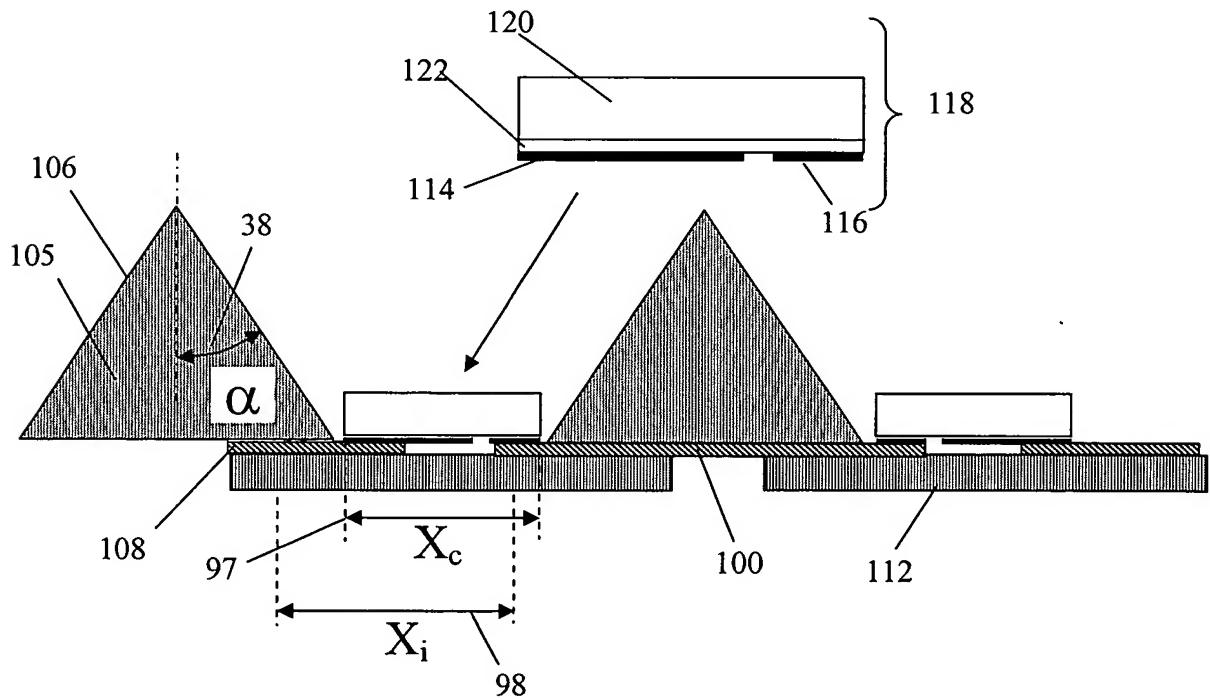


FIG. 4A.

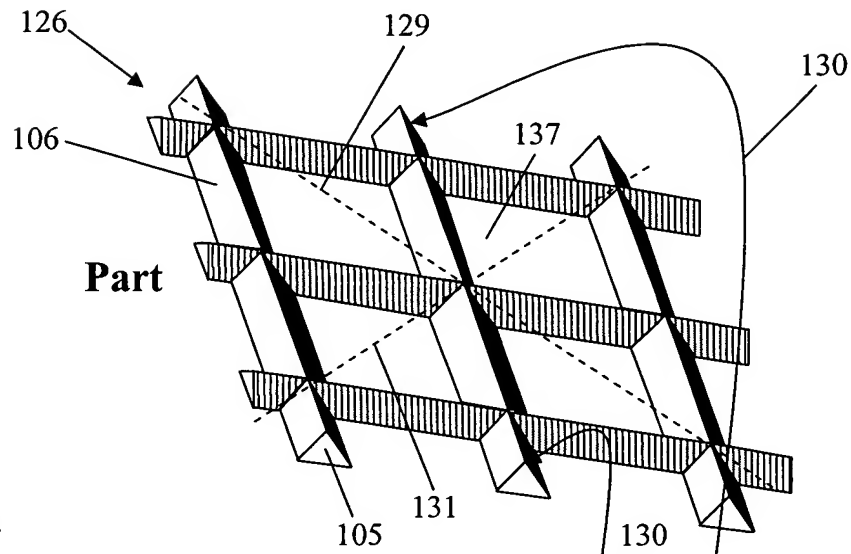


FIG. 4B.

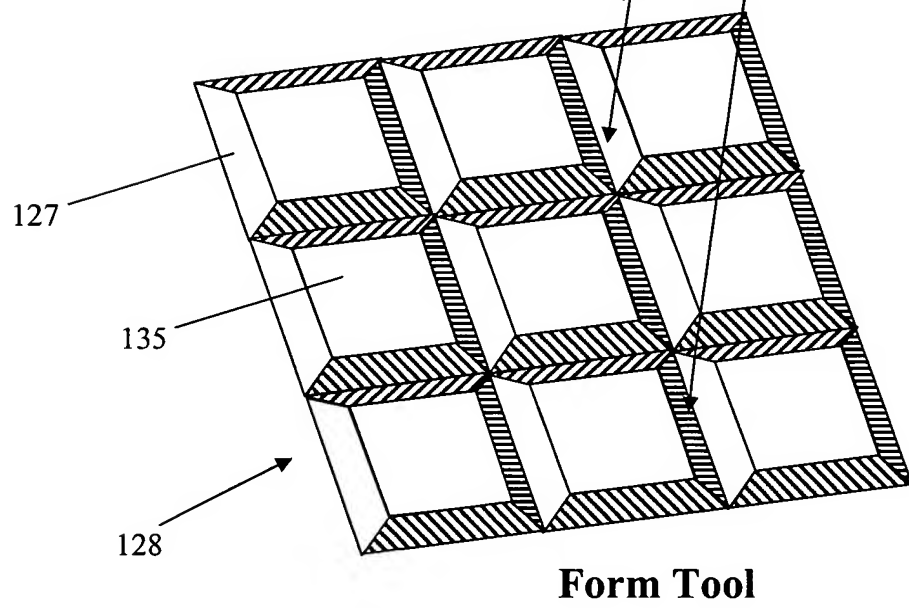


FIG. 5B.



Perspective View

FIG. 6A

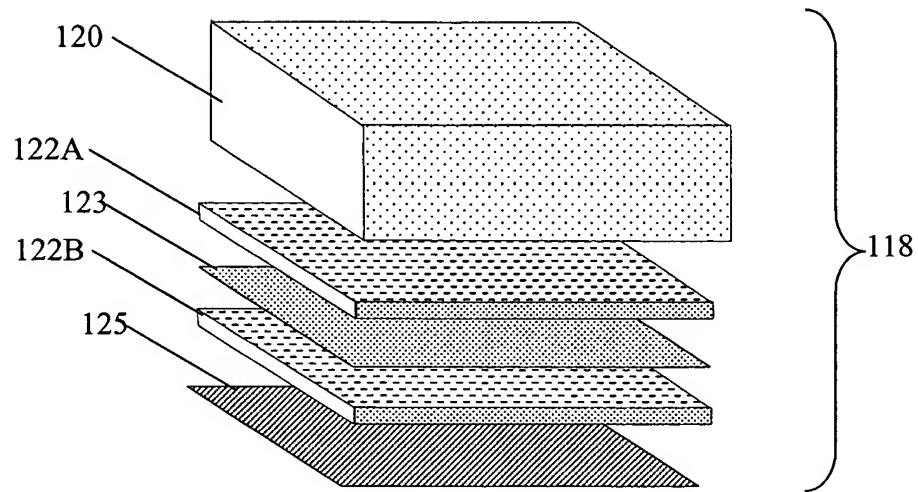


FIG. 6B

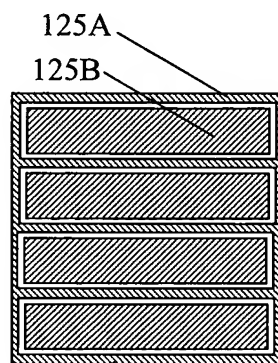


FIG. 6C.

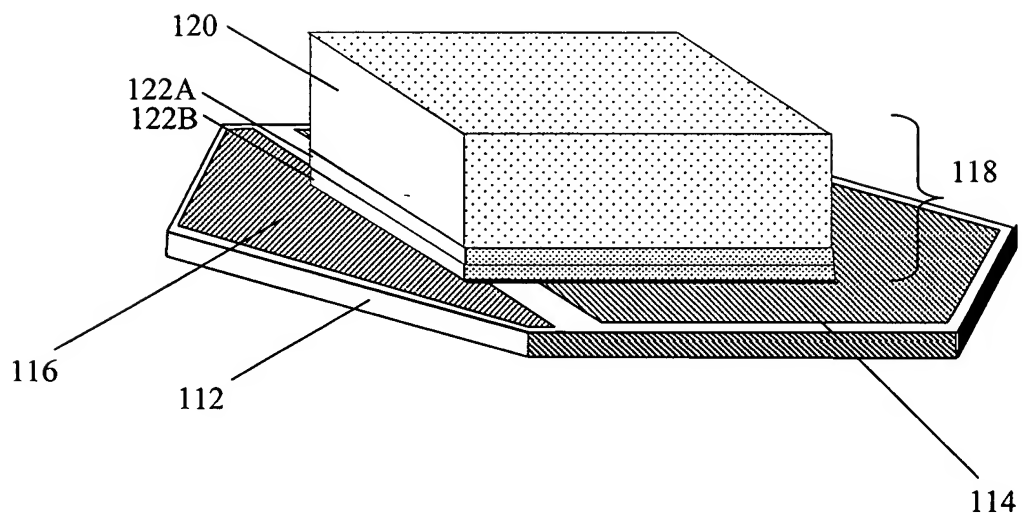


FIG. 7

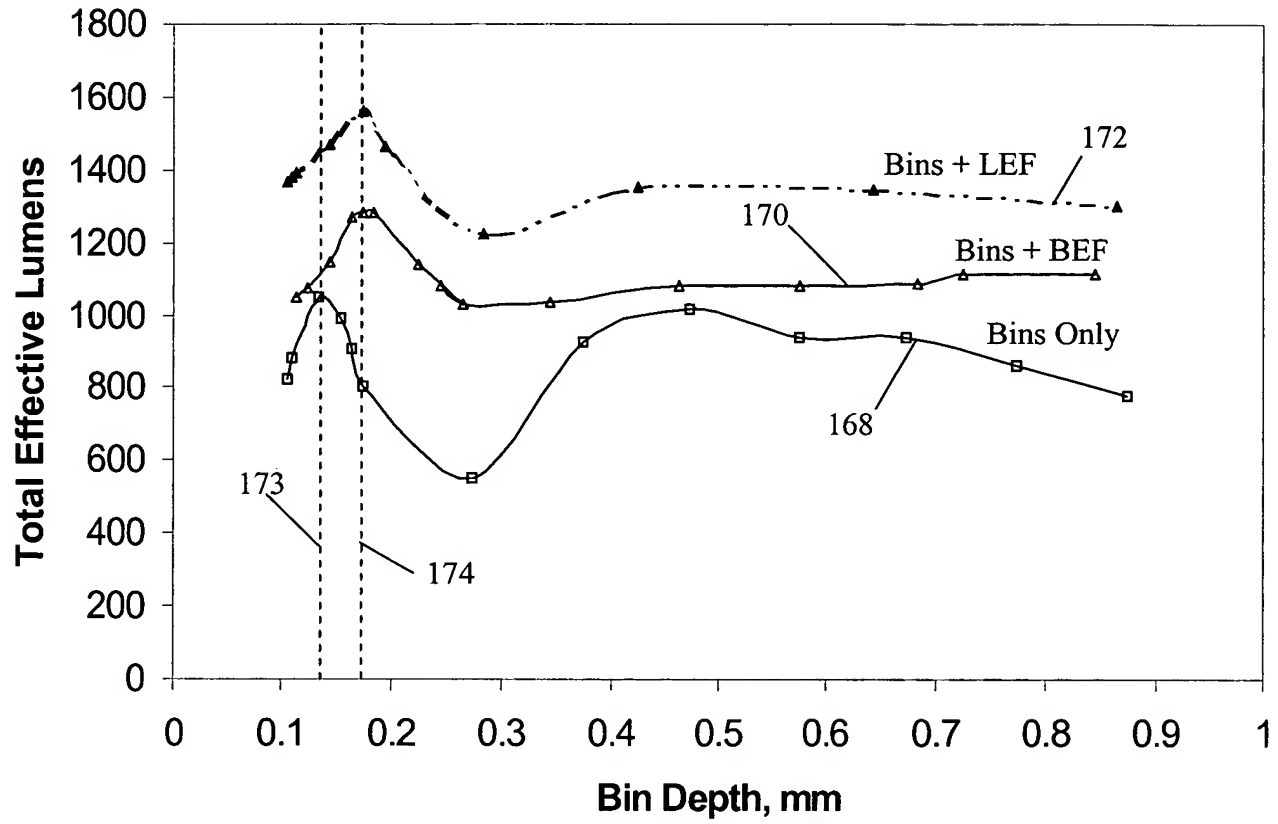


FIG. 8

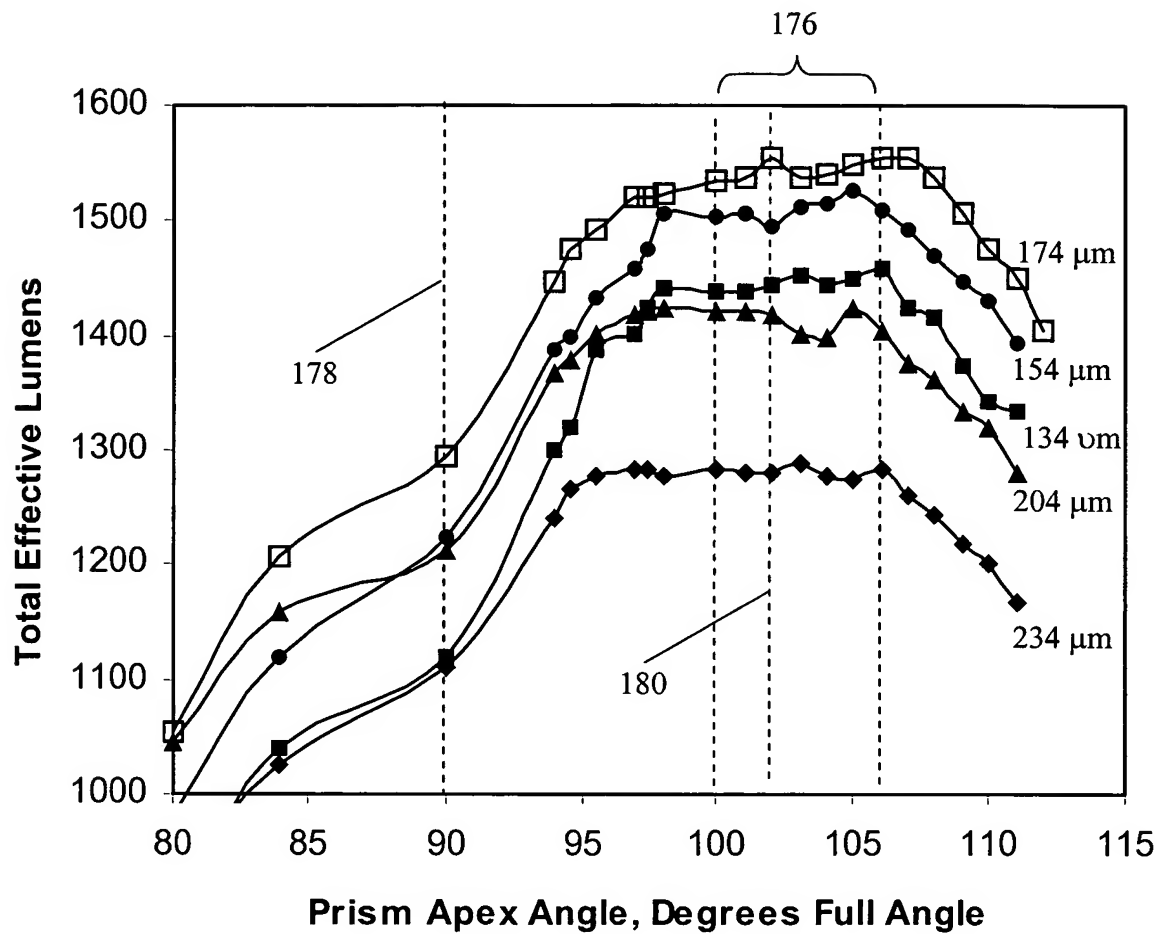


FIG. 9

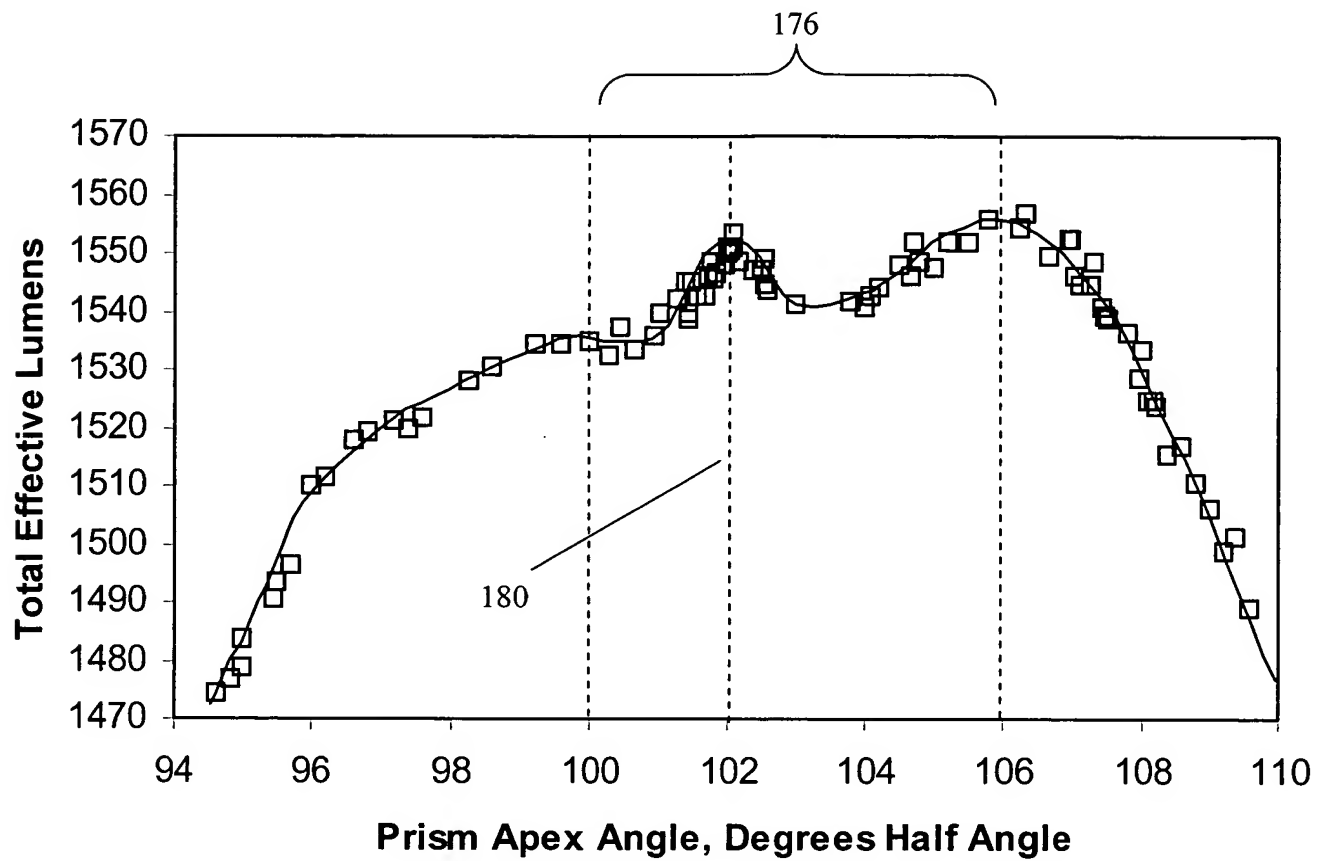
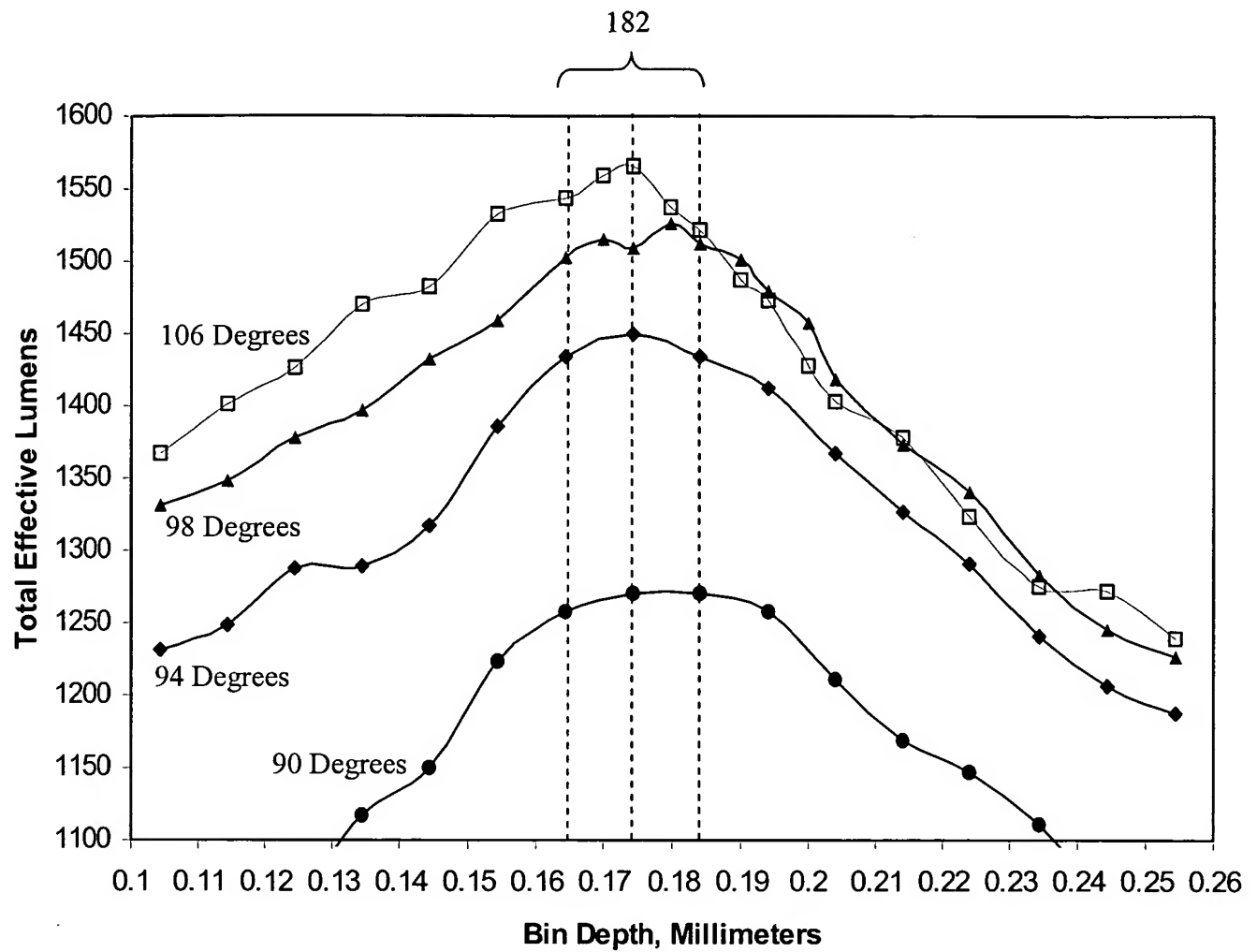


FIG. 10



Polarization Key



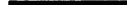


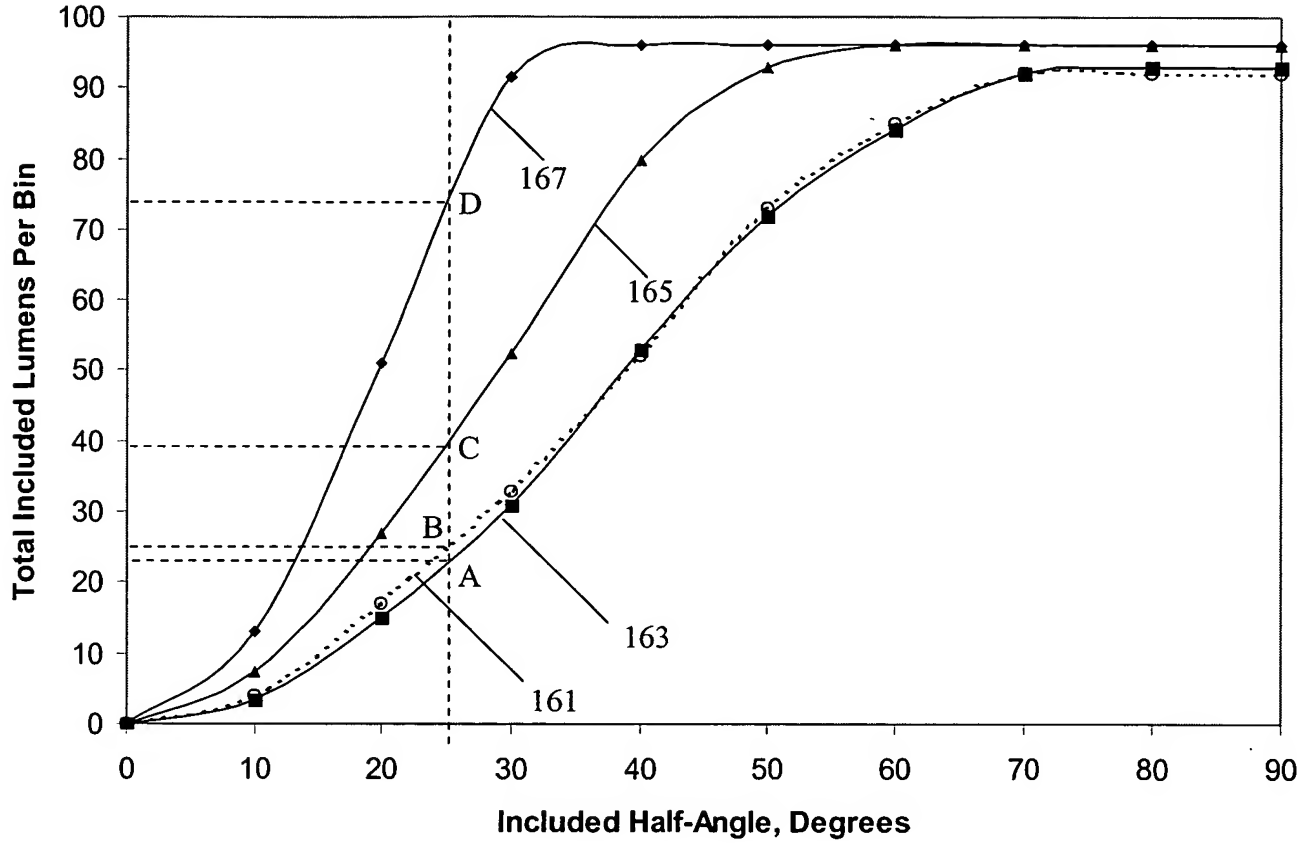
-
-  P-Polarized Linear
 Right Hand Circular
 Left Hand Circular
 S-Polarized Linear
 Un-Polarized

FIG. 12



	A	B	C	D
$\pm\theta_{OUT}$, MEDIA	43.4	N.A.	30	20
$\pm\theta_{OUT}$, AIR	90	90	48	30
X_{BIN}	1.6	1.6	2.2	3.2
LUMENS/BIN, $\pm 25^\circ$	23	25	40	72.5
N BINS	42	42	22	10.5
TOTAL LUMENS	966	1050	880	761

FIG. 13.

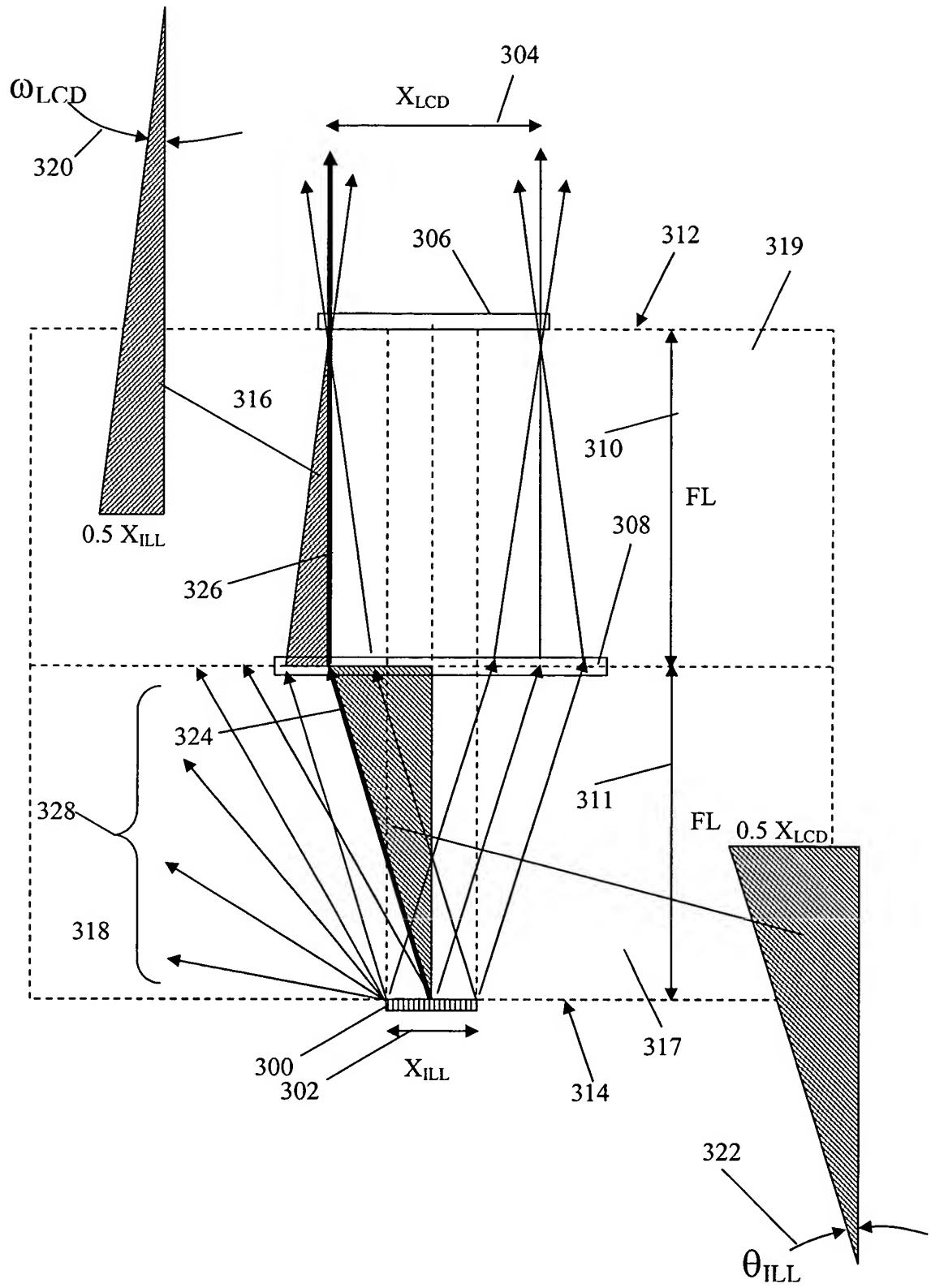


FIG. 14.

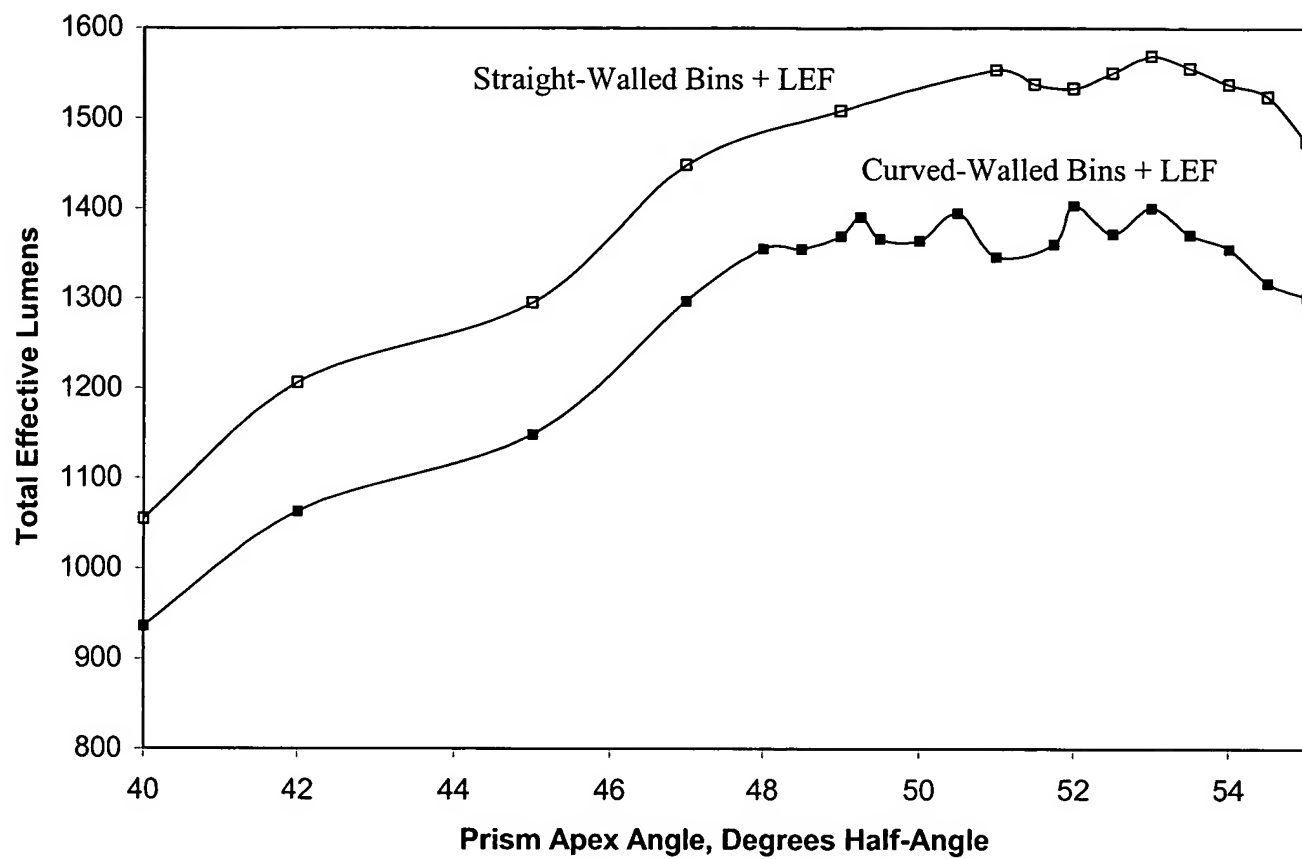


FIG. 15A.

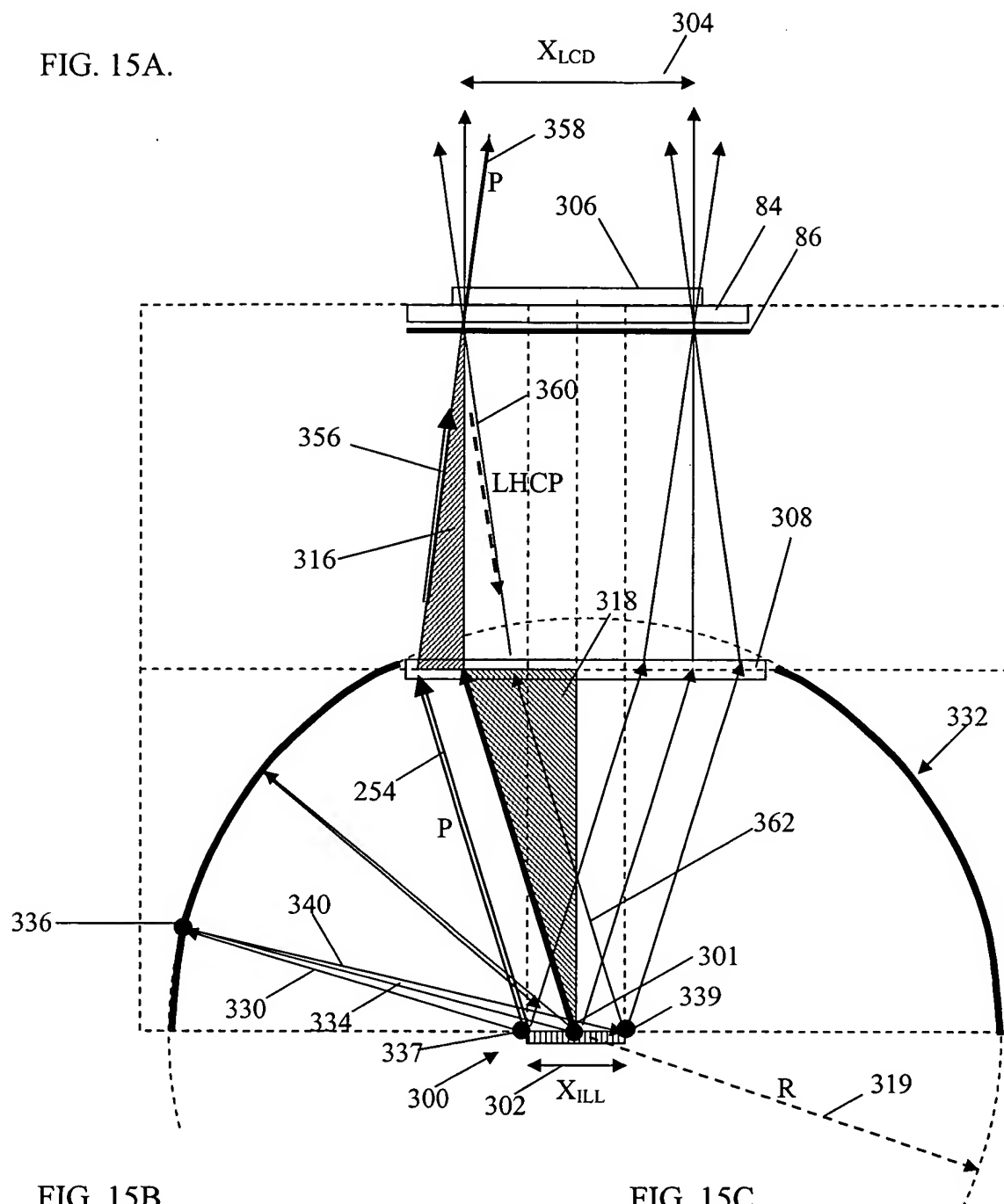


FIG. 15B.

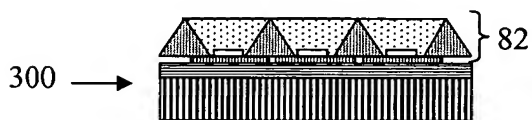


FIG. 15C.

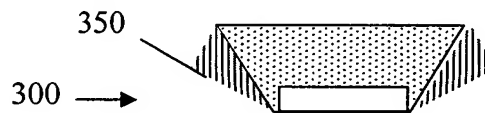


FIG. 15D.

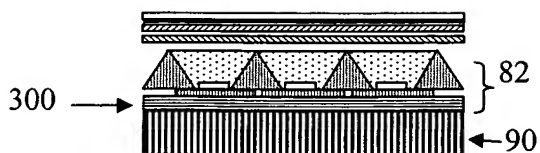


FIG. 15E.

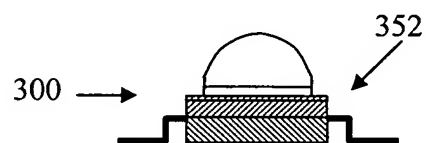


FIG. 16A.

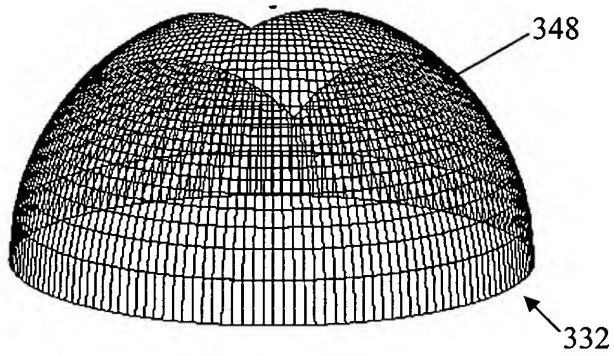


FIG. 16B

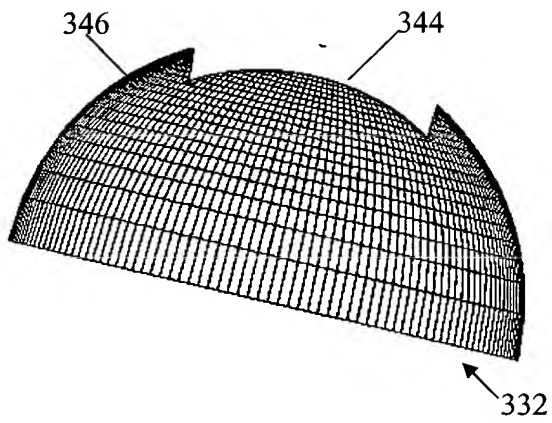


FIG. 16C

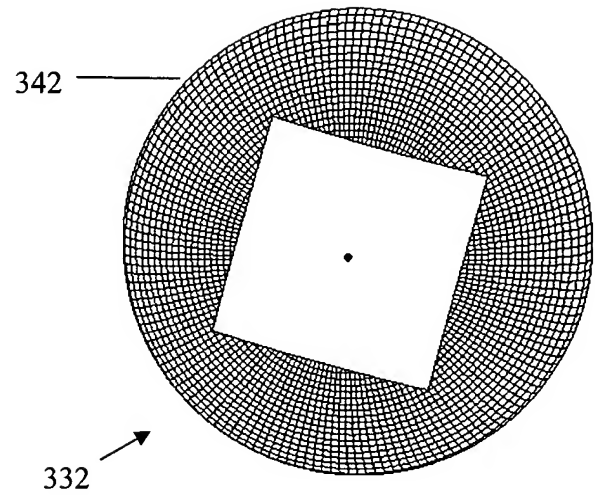


FIG. 16D.

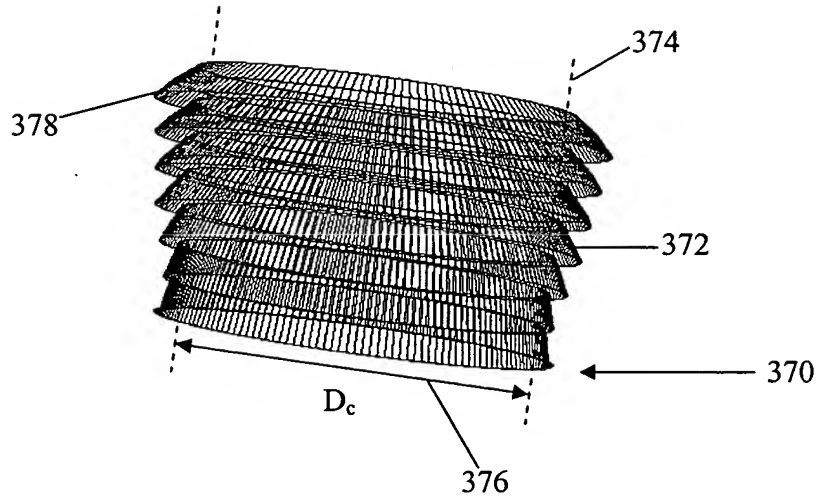


FIG. 18

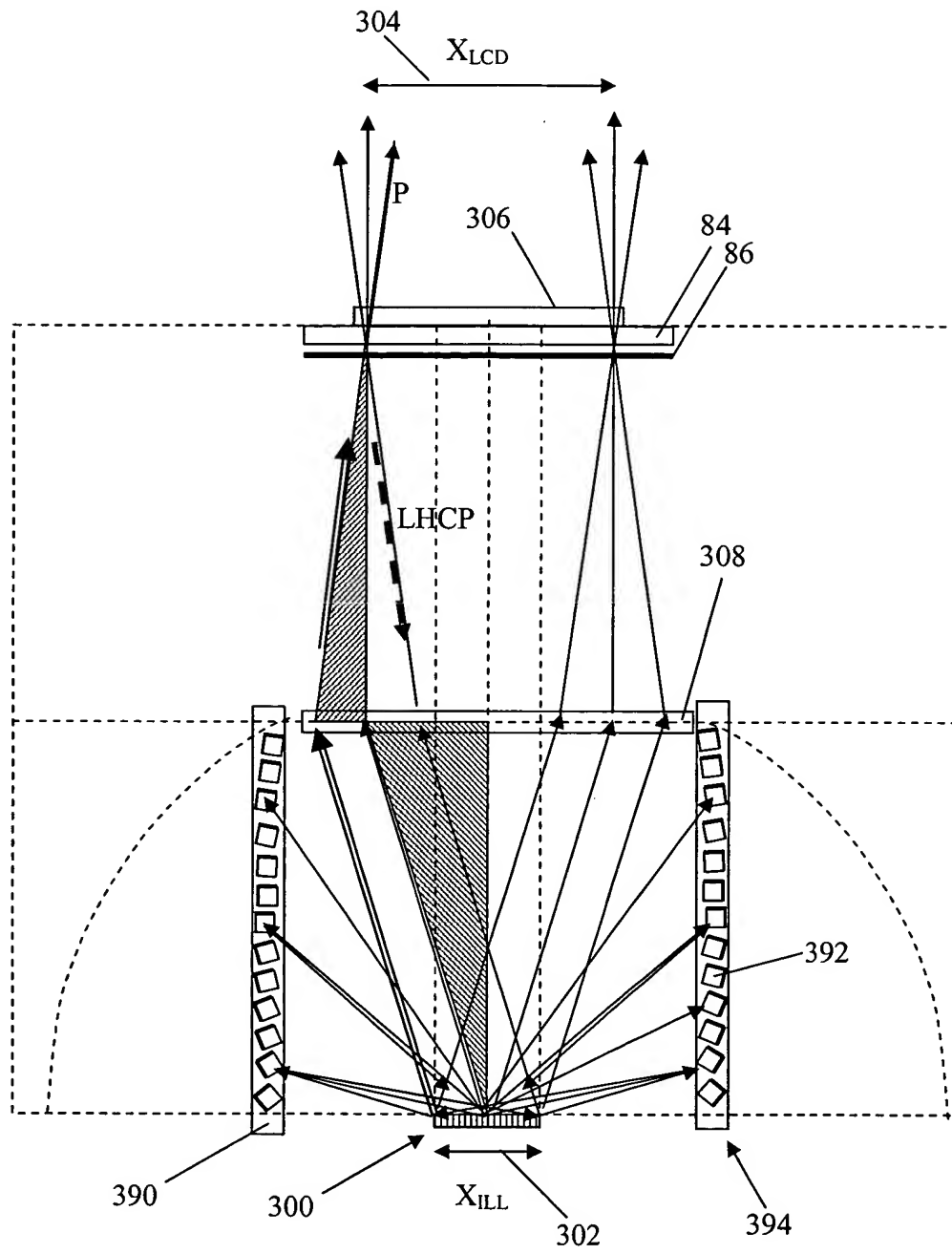


Figure 4 is a schematic diagram of a system 430, enclosed within a dashed circular boundary. The system includes a shaded region 101 and a hatched region 105. A point 416 is located at the interface between these regions. A solid line 440 and a dashed line 424 originate from point 416. Other labeled components include regions 106, 192, 270, 432, 434, 418, 420, 436, 446, and 424, which are connected to their respective labels by leader lines.

FIG. 20

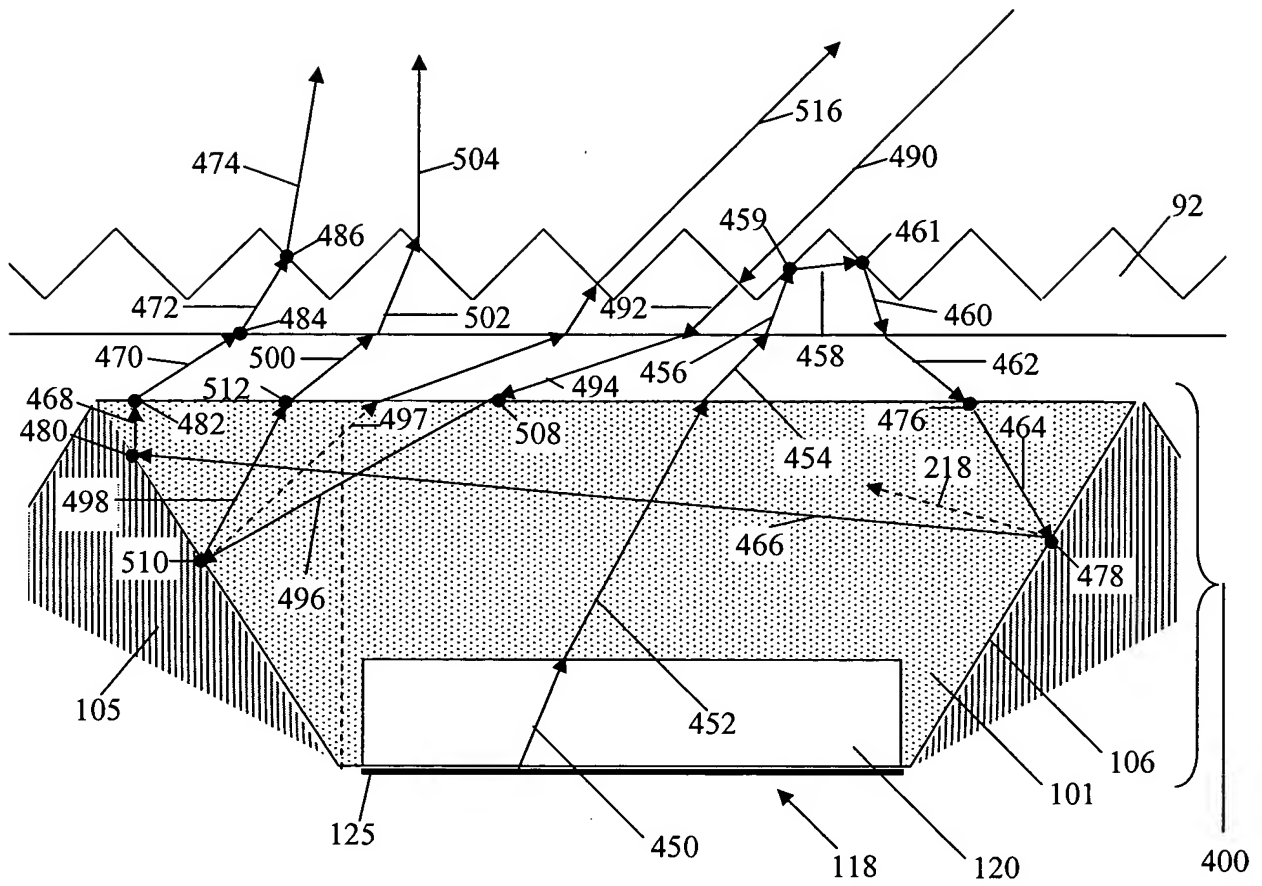


FIG. 21A.

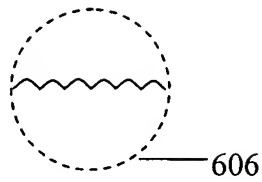


FIG. 21B.

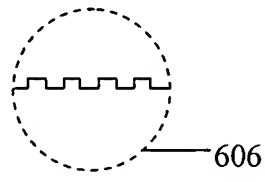


FIG. 21C.

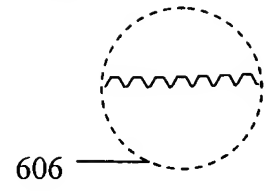


FIG. 21D.

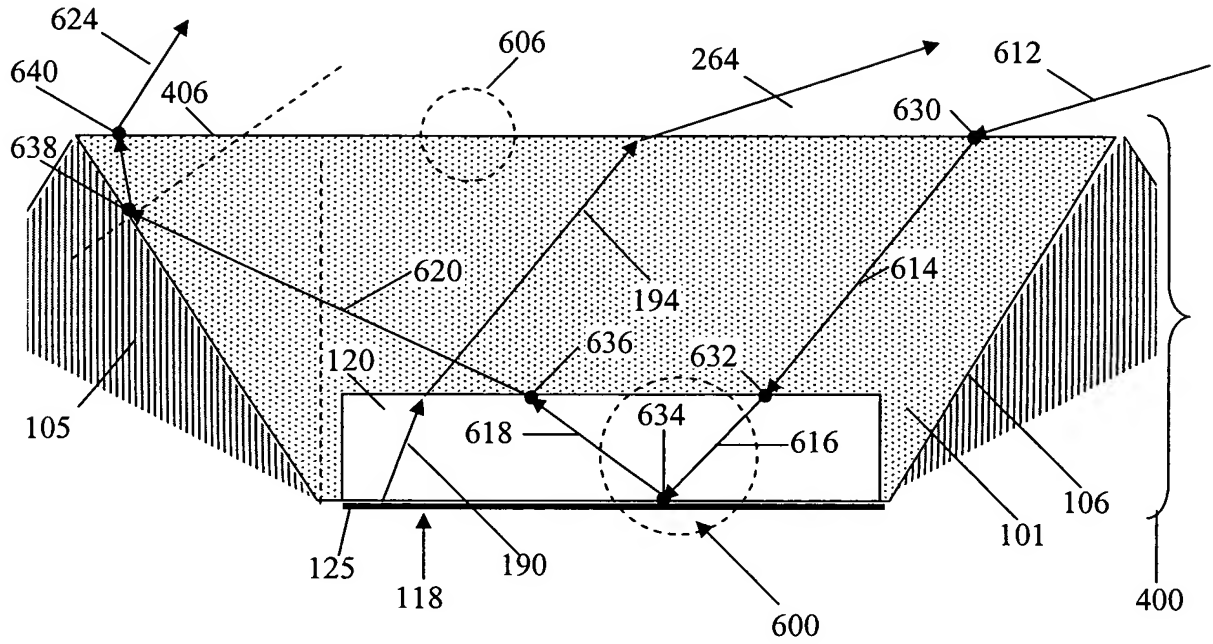


FIG. 21E.

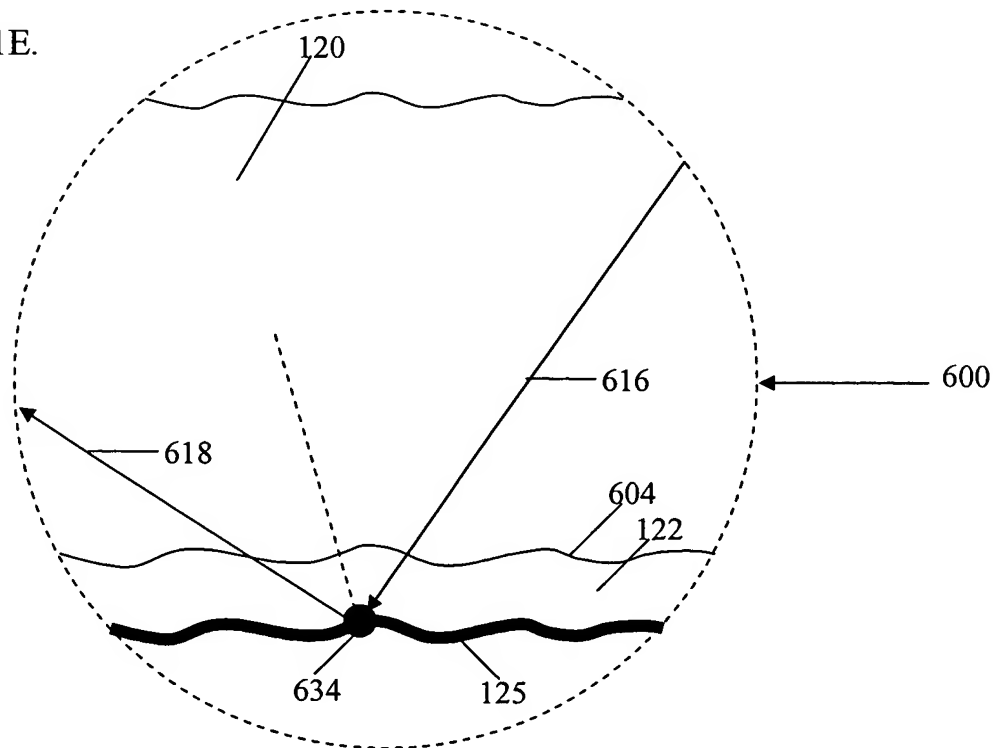


FIG. 22A.

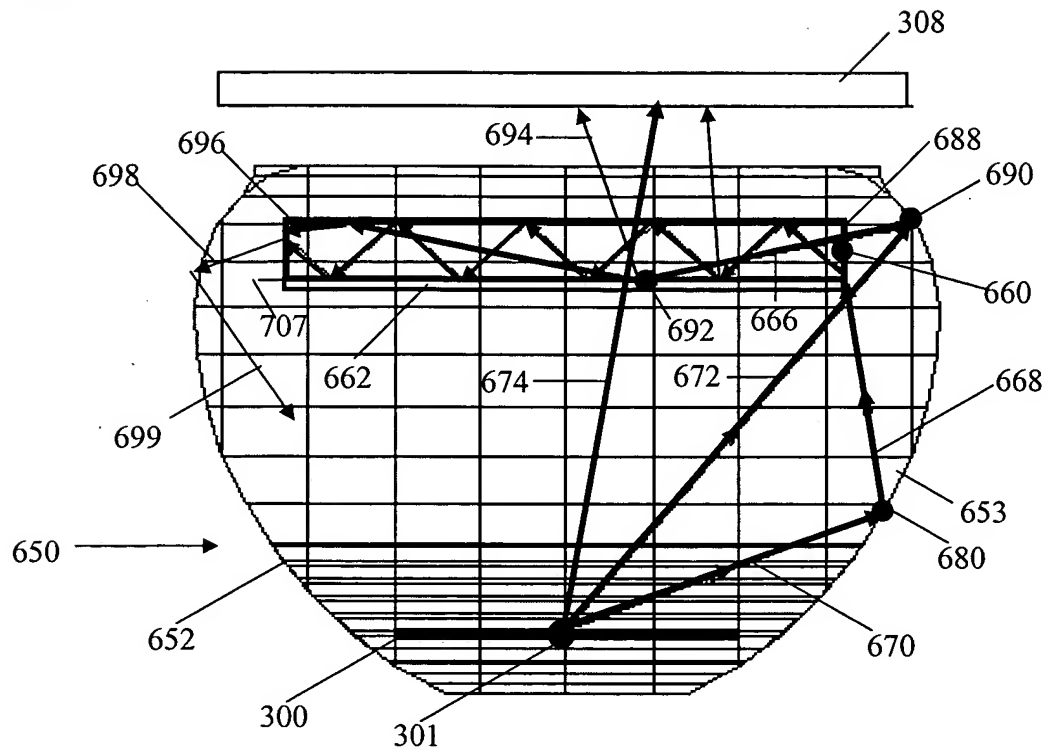


FIG. 22B.

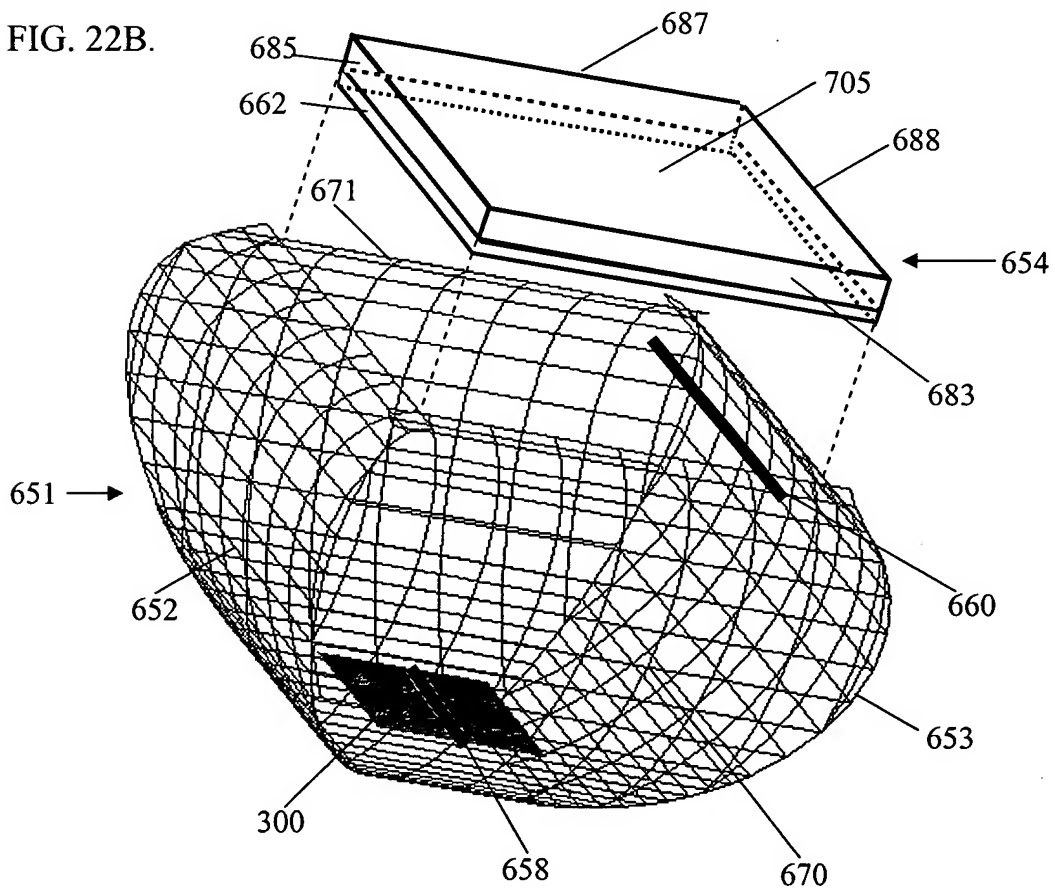


FIG. 23A.

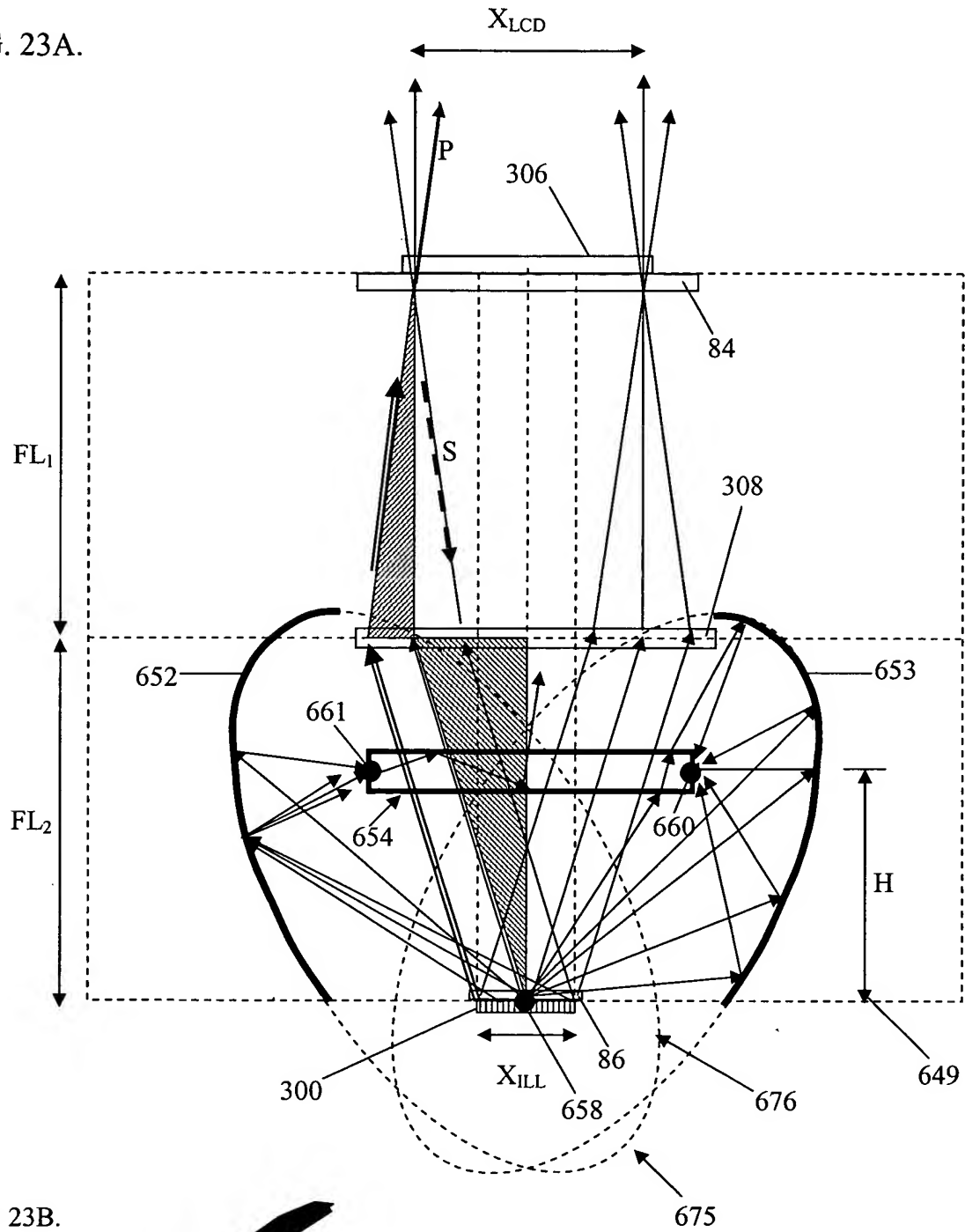


FIG. 23B.

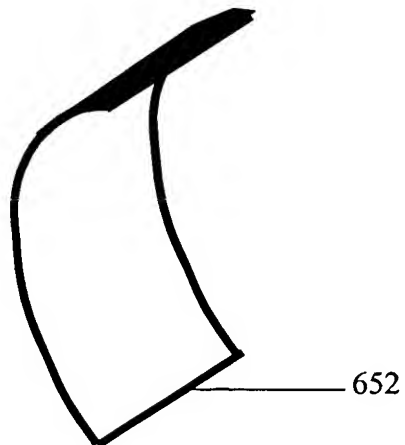


FIG. 24A.

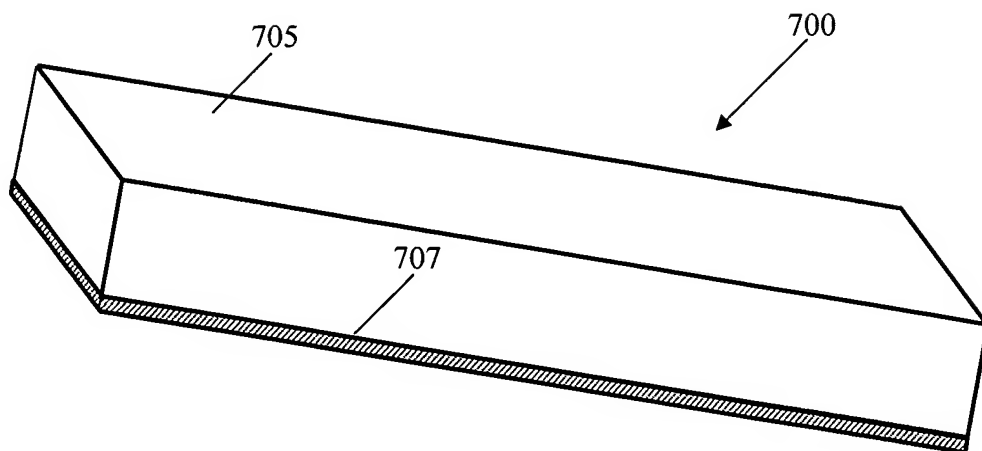


FIG. 24B.

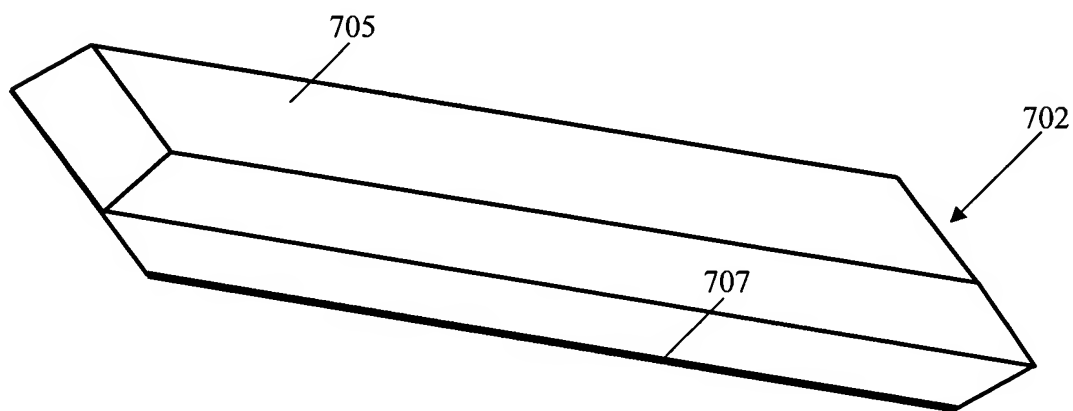


FIG. 24C.

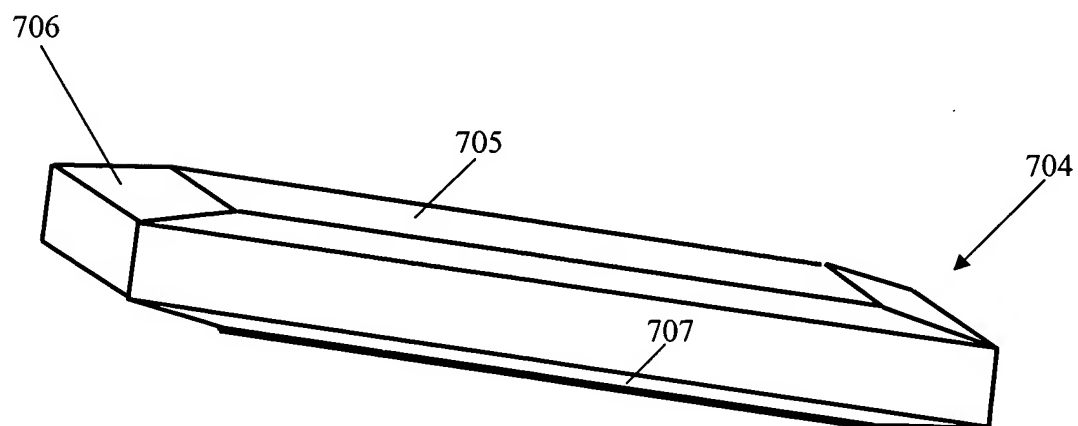


FIG. 25A.

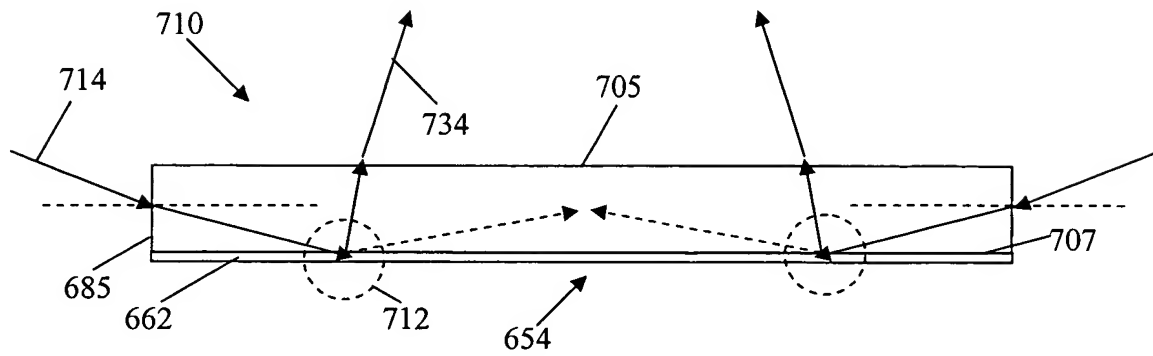


FIG. 25B.

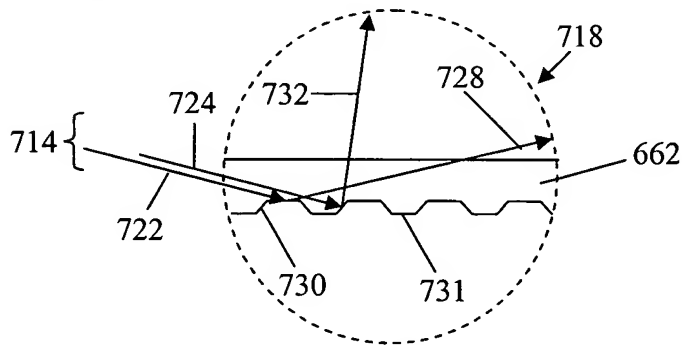


FIG. 25C.

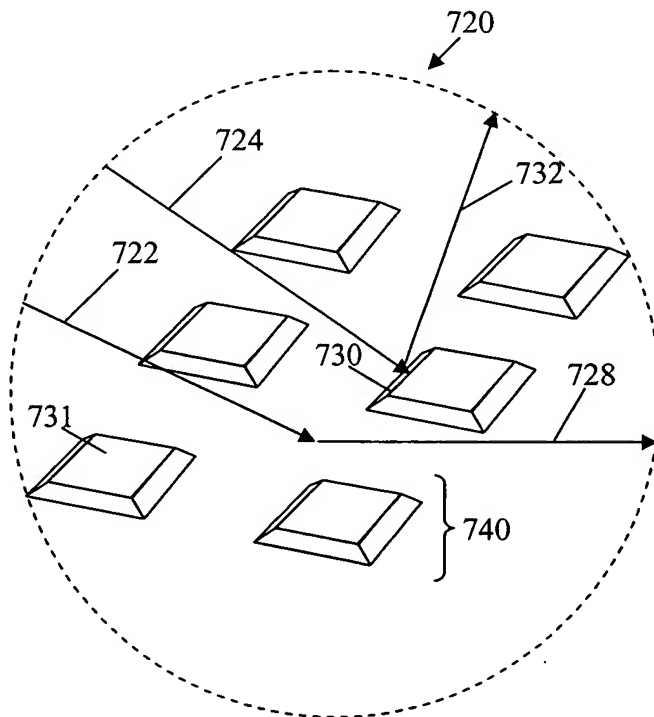


FIG. 26

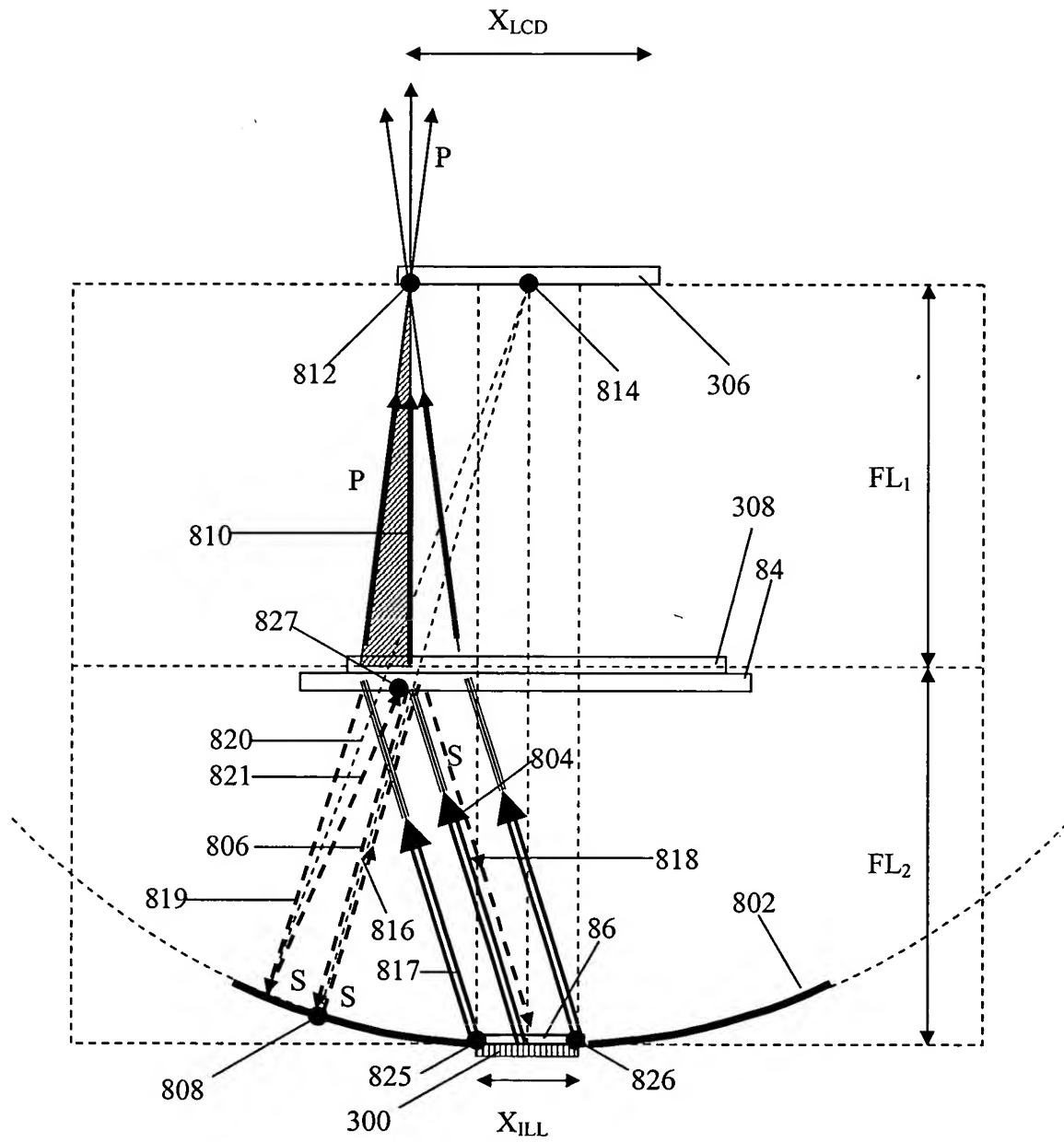


FIG. 27

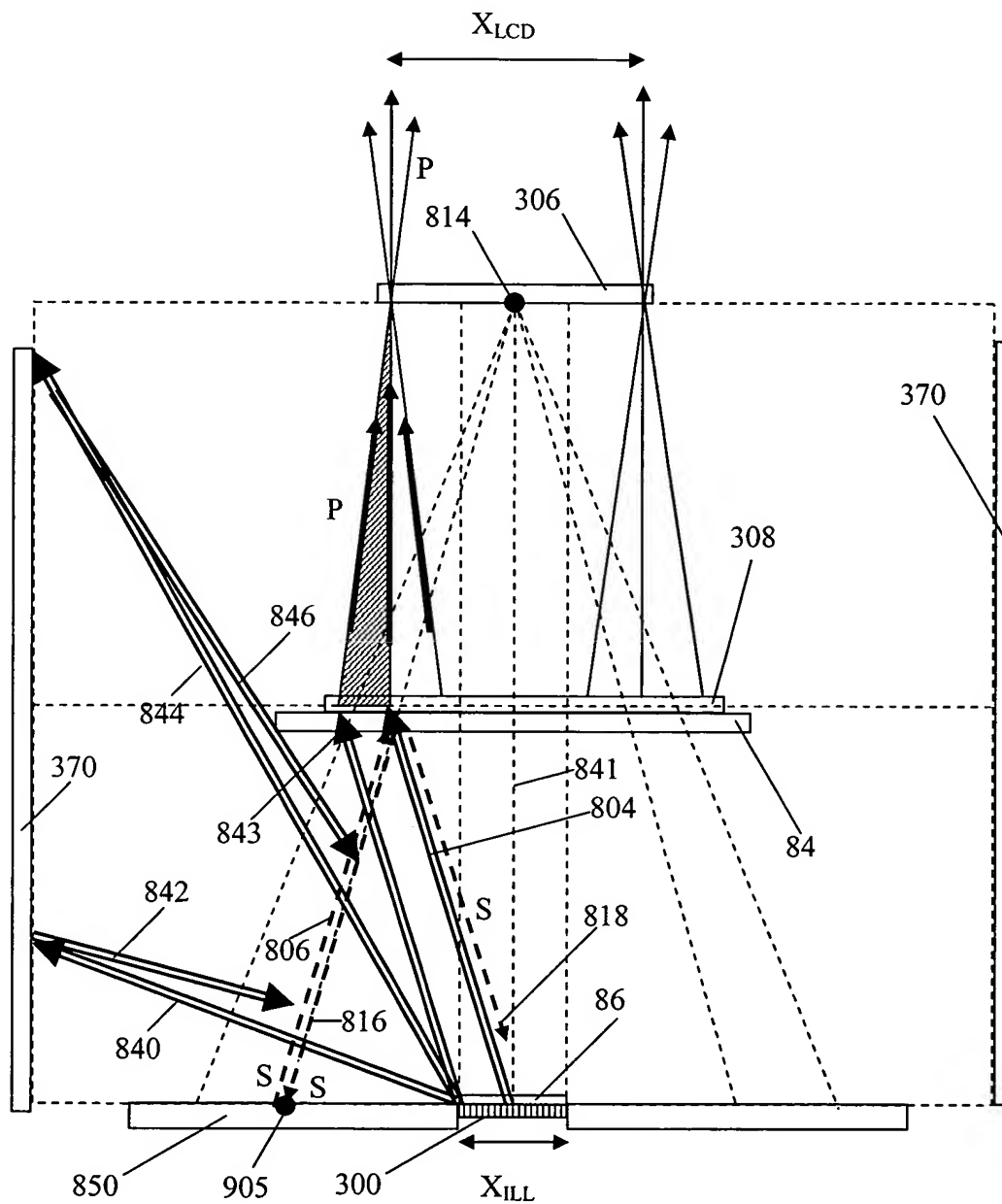


FIG. 28A.

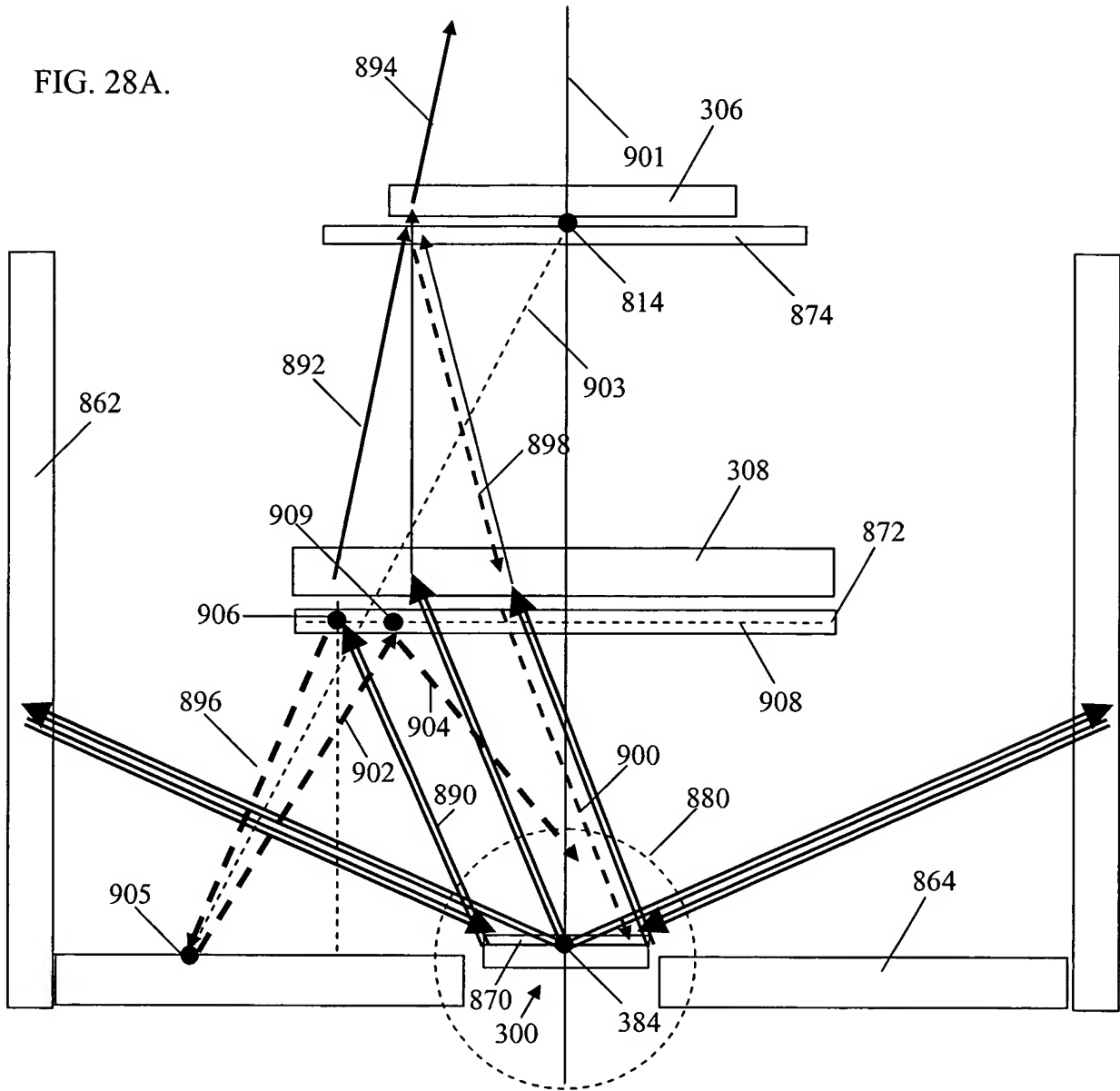
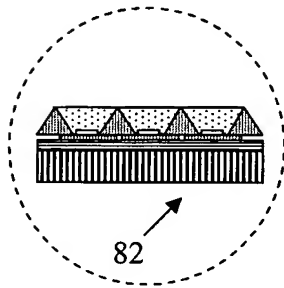
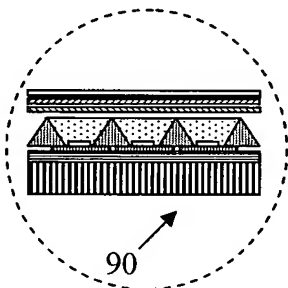


FIG. 28B.



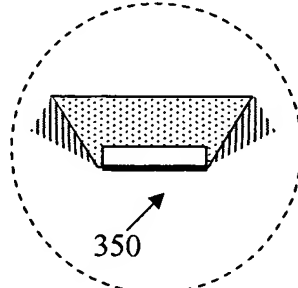
880

FIG. 28C.



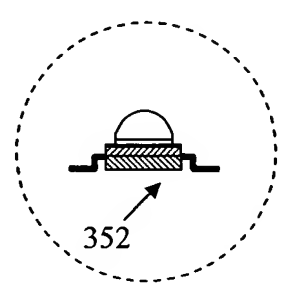
880

FIG. 28D.



880

FIG. 28E.



880

FIG. 29A.

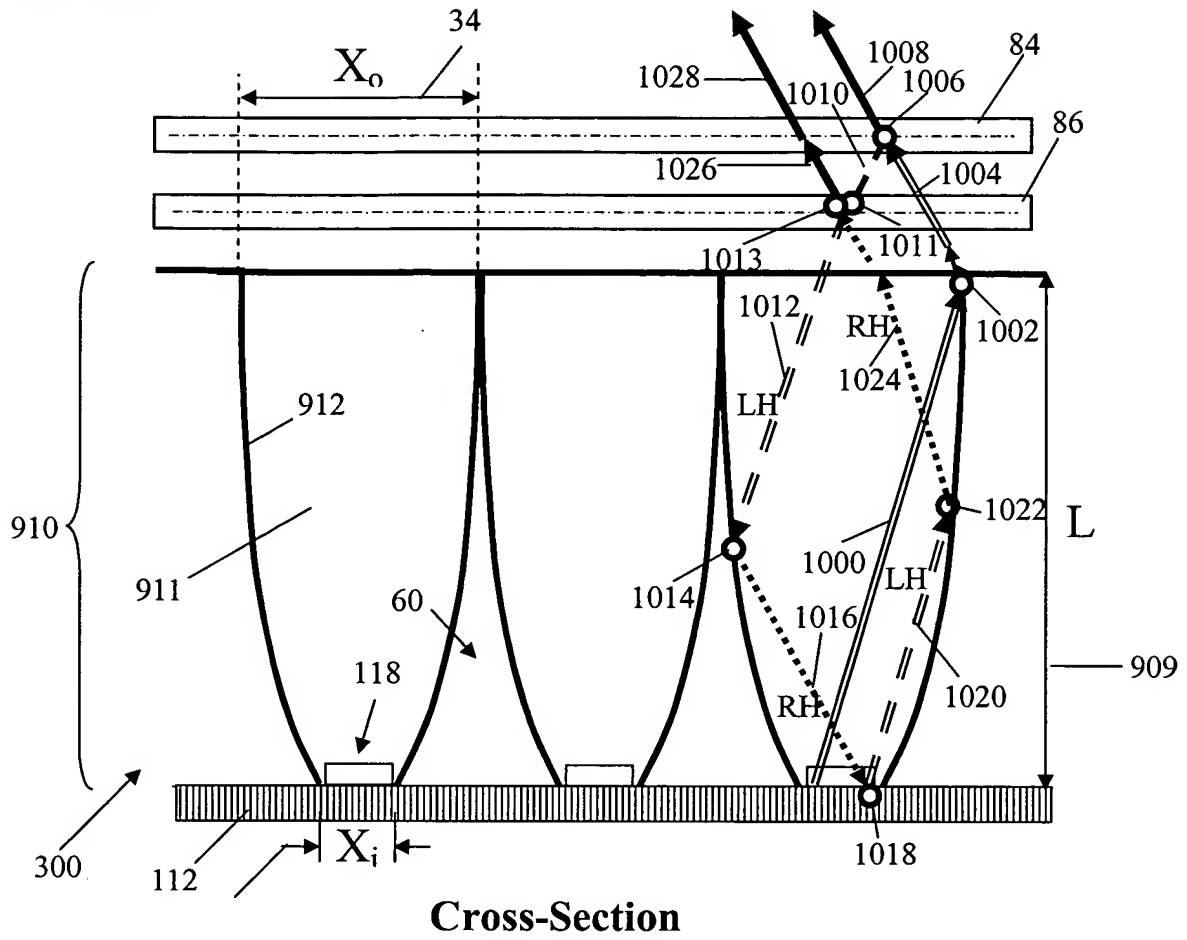


FIG. 29B.

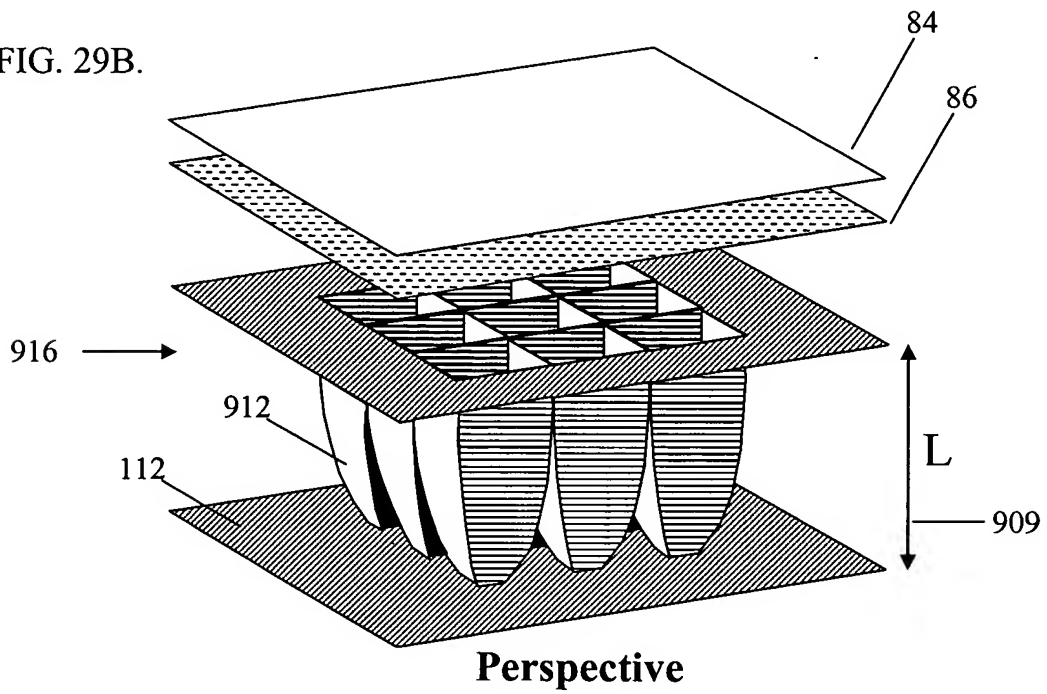


FIG. 30A.

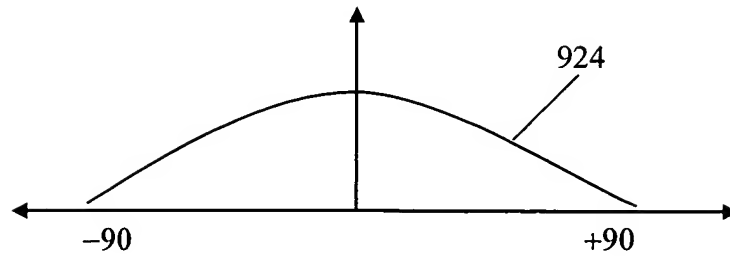


FIG. 30B.

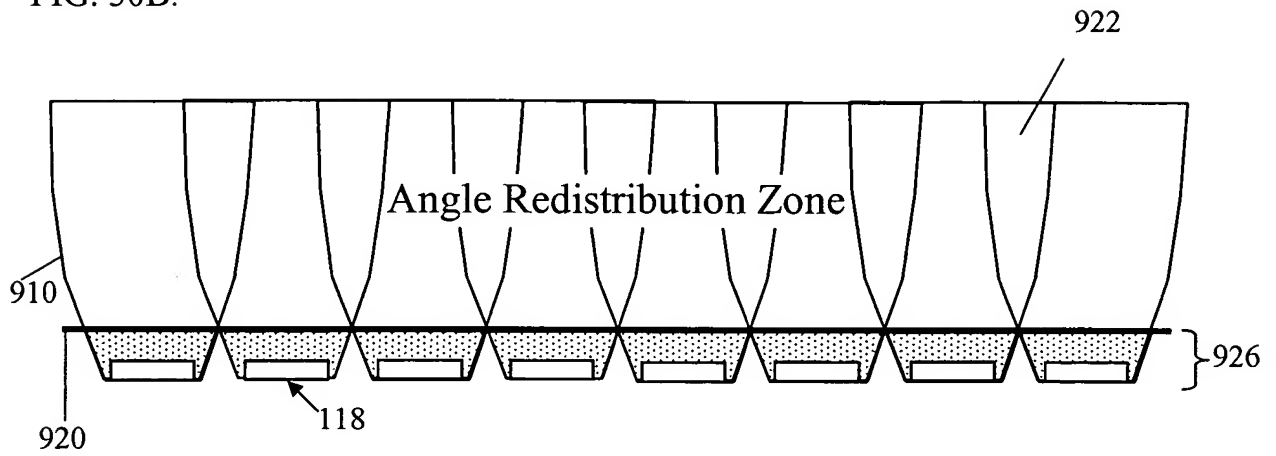


FIG. 31A.

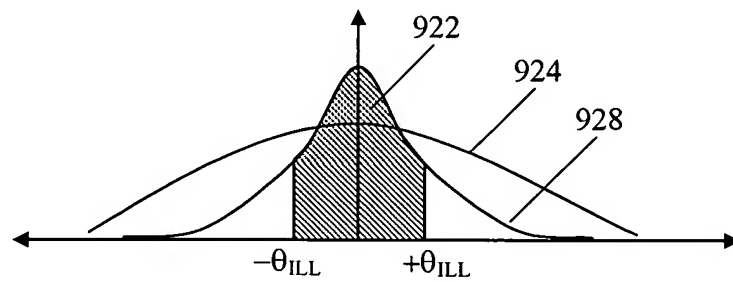


FIG. 31B.

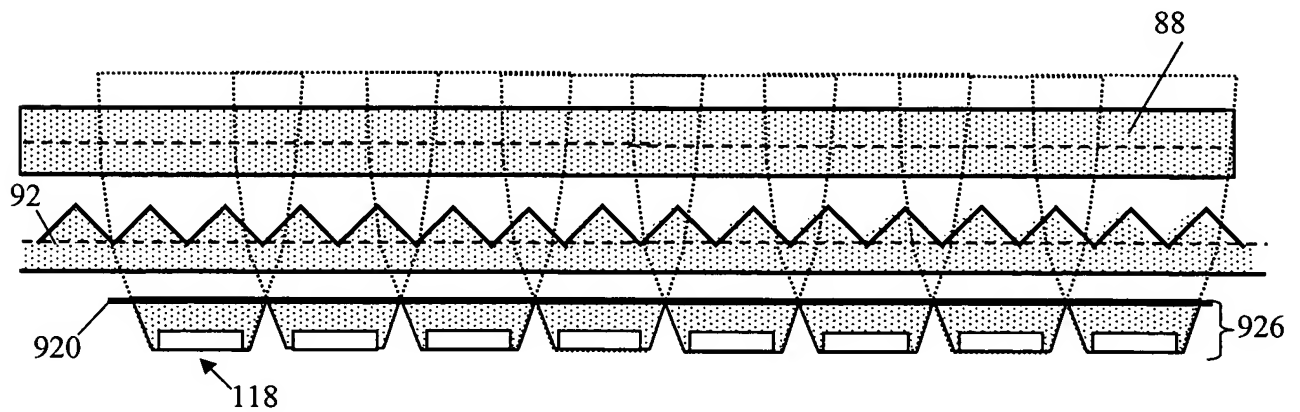


FIG. 32A.

9 Etendue-Preserving Bins; Center On, Neighbors Off

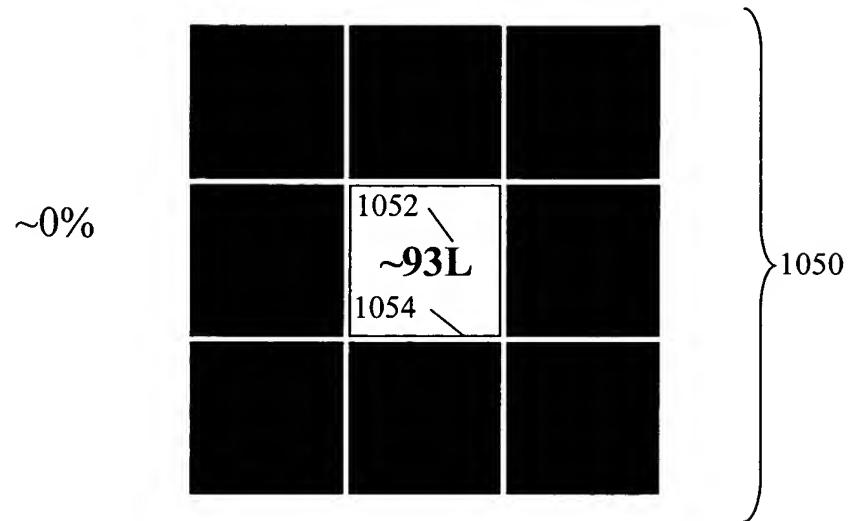


FIG. 32B.

9 Etendue-Preserving Bins; All On

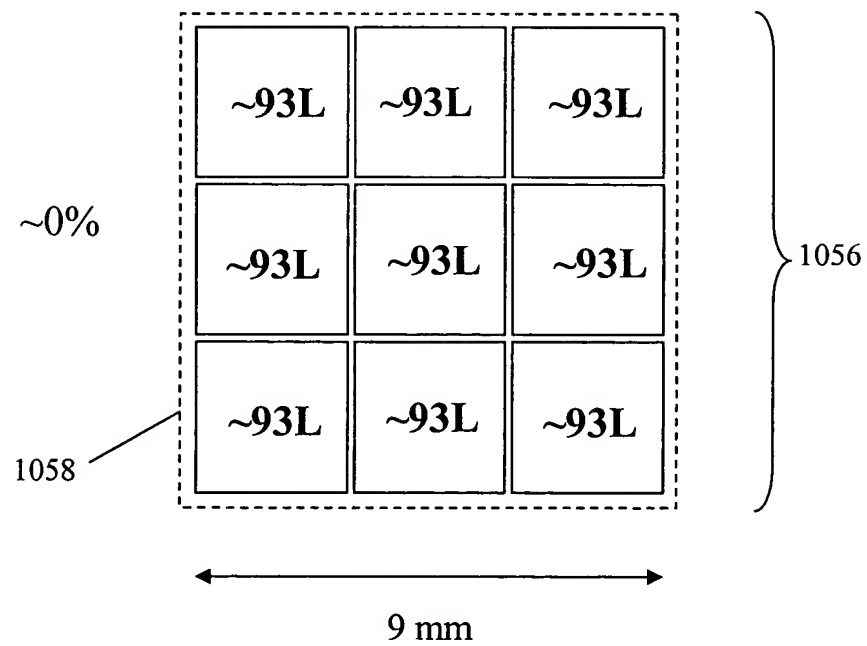


FIG. 33A.

1 Non-Etendue-Preserving Bin On; 8 Non-Etendue-Preserving Bins Off

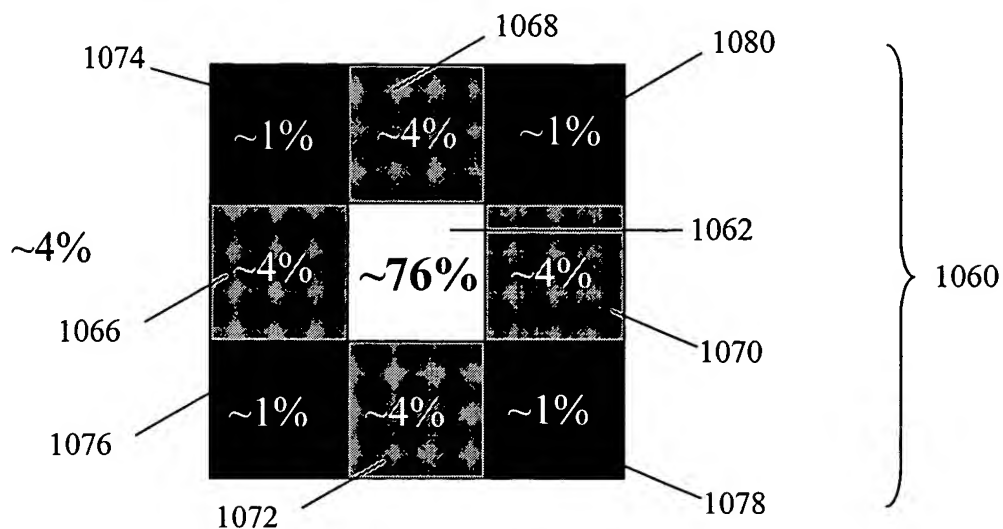


FIG. 33B.

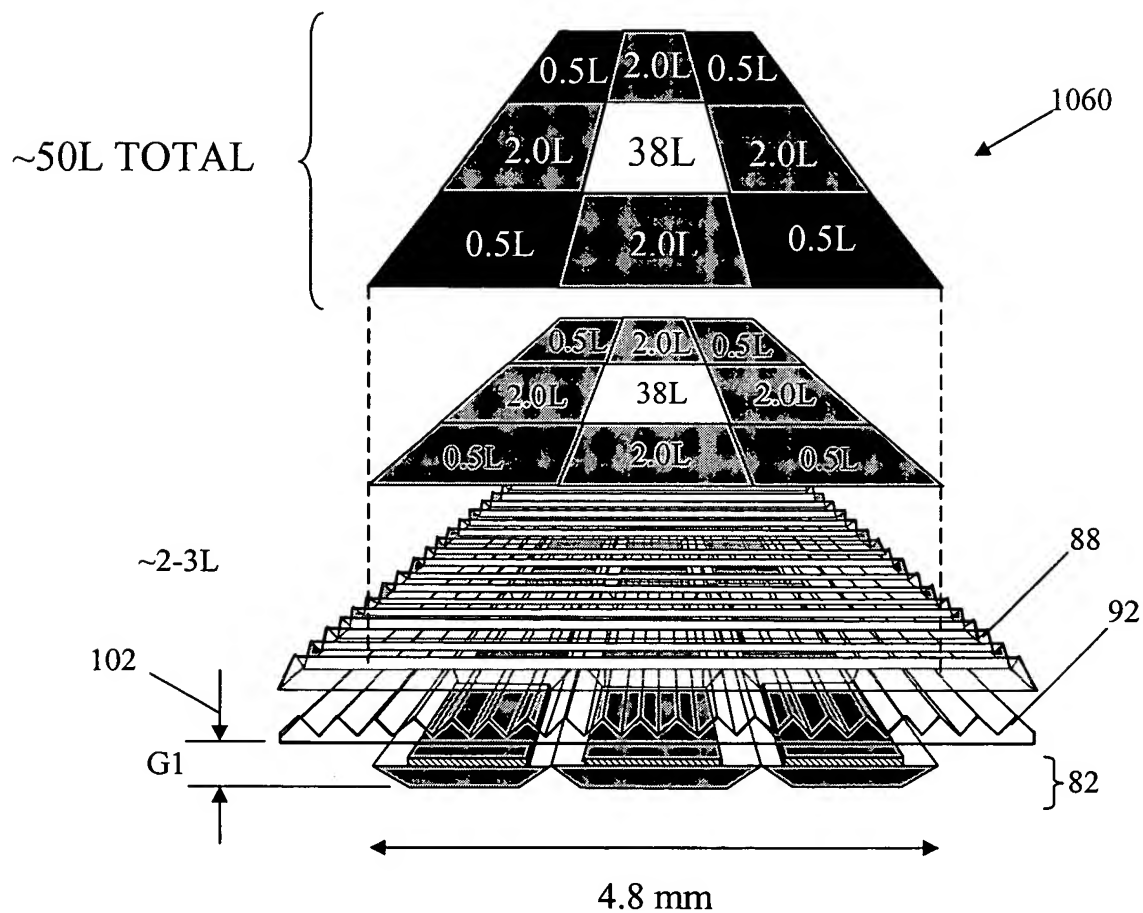


FIG. 34

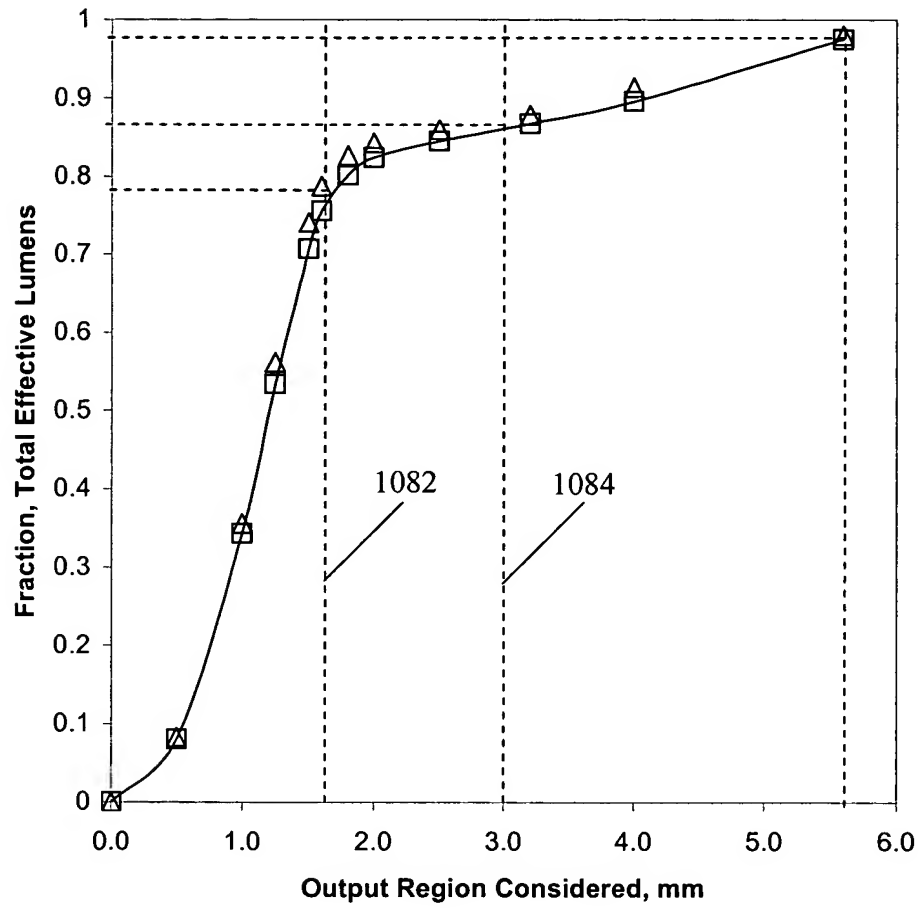


FIG. 35A.

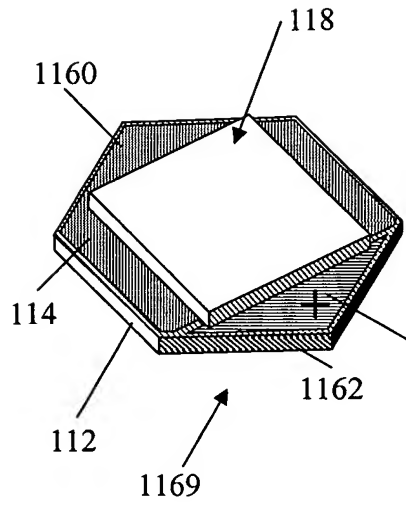


FIG. 35B.

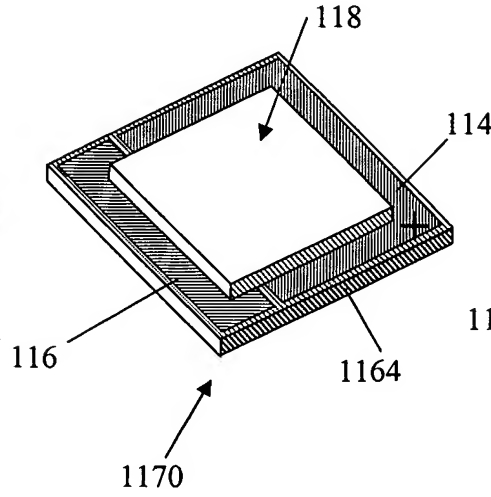


FIG. 35C.

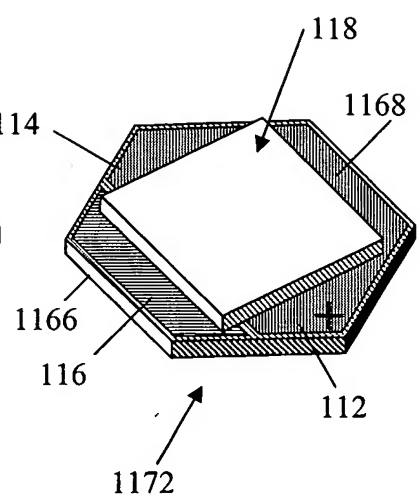


FIG. 35D.

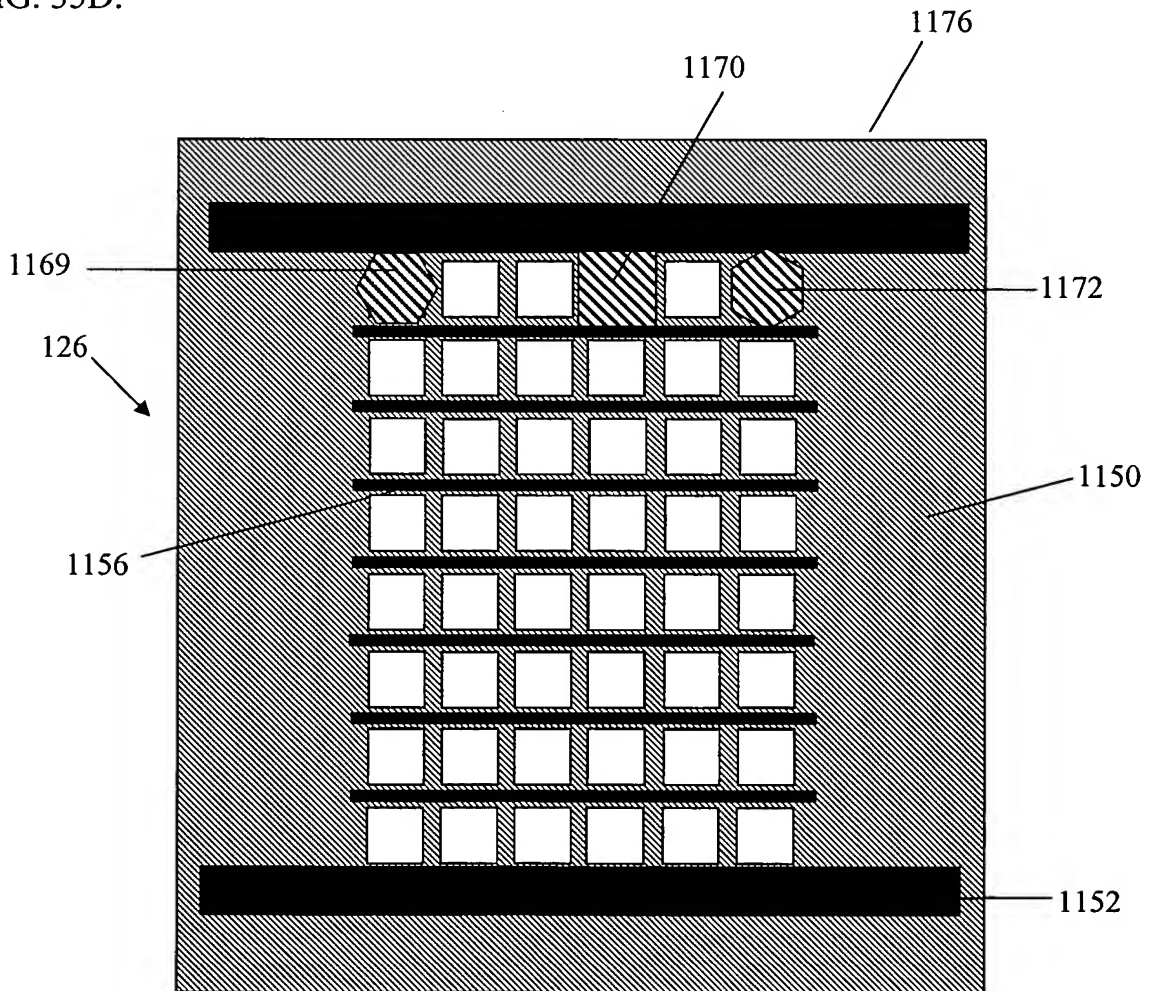


FIG. 35E.

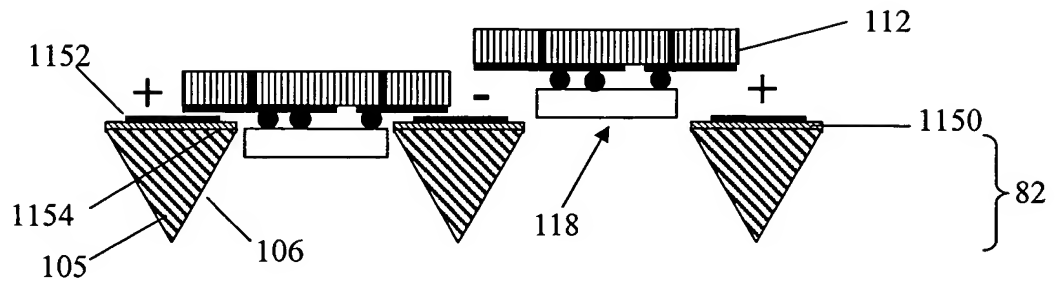


FIG. 36.

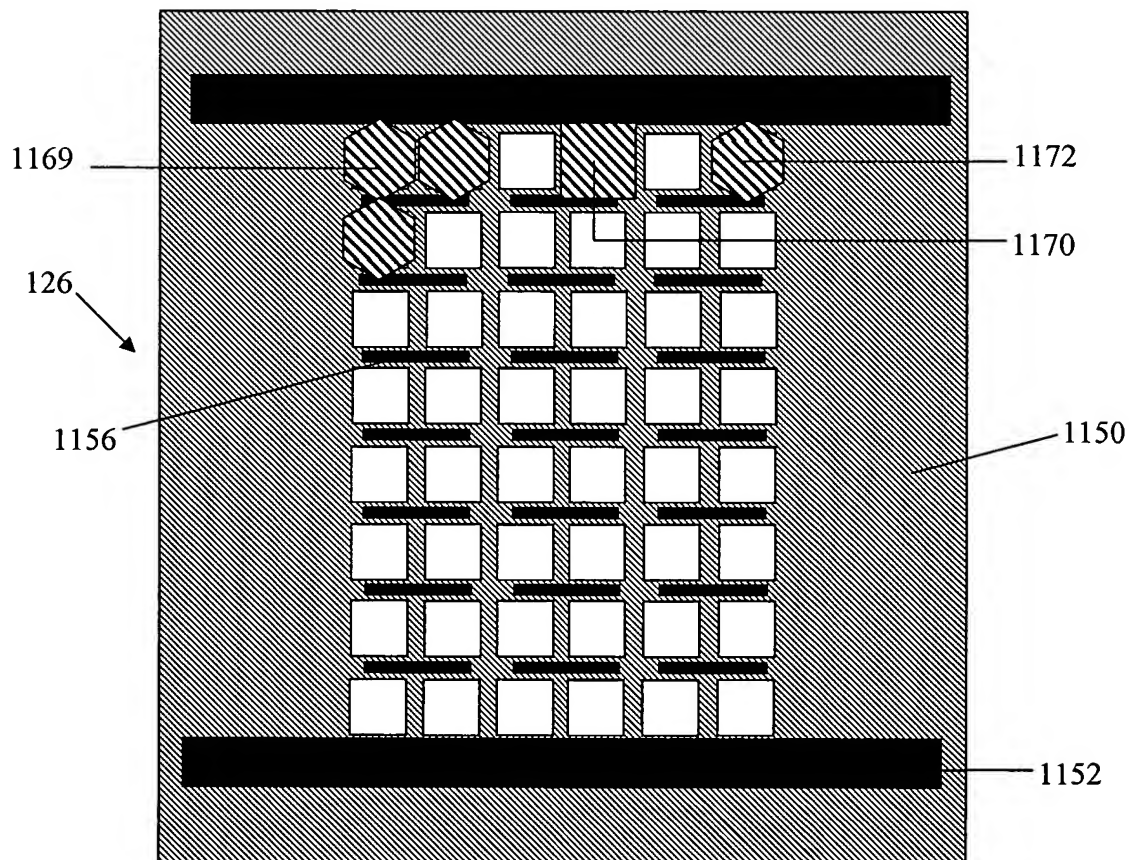


FIG. 37

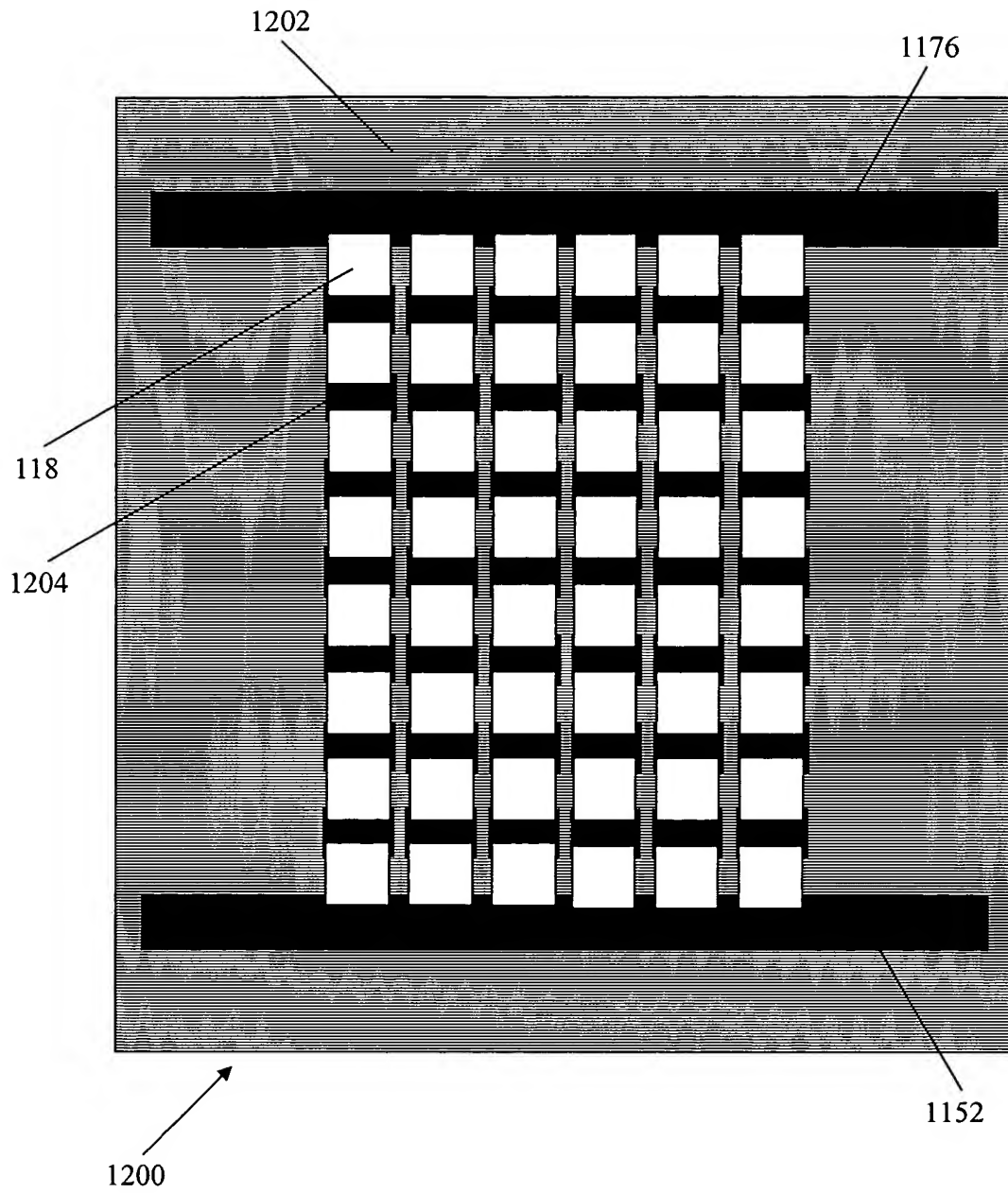


FIG. 38

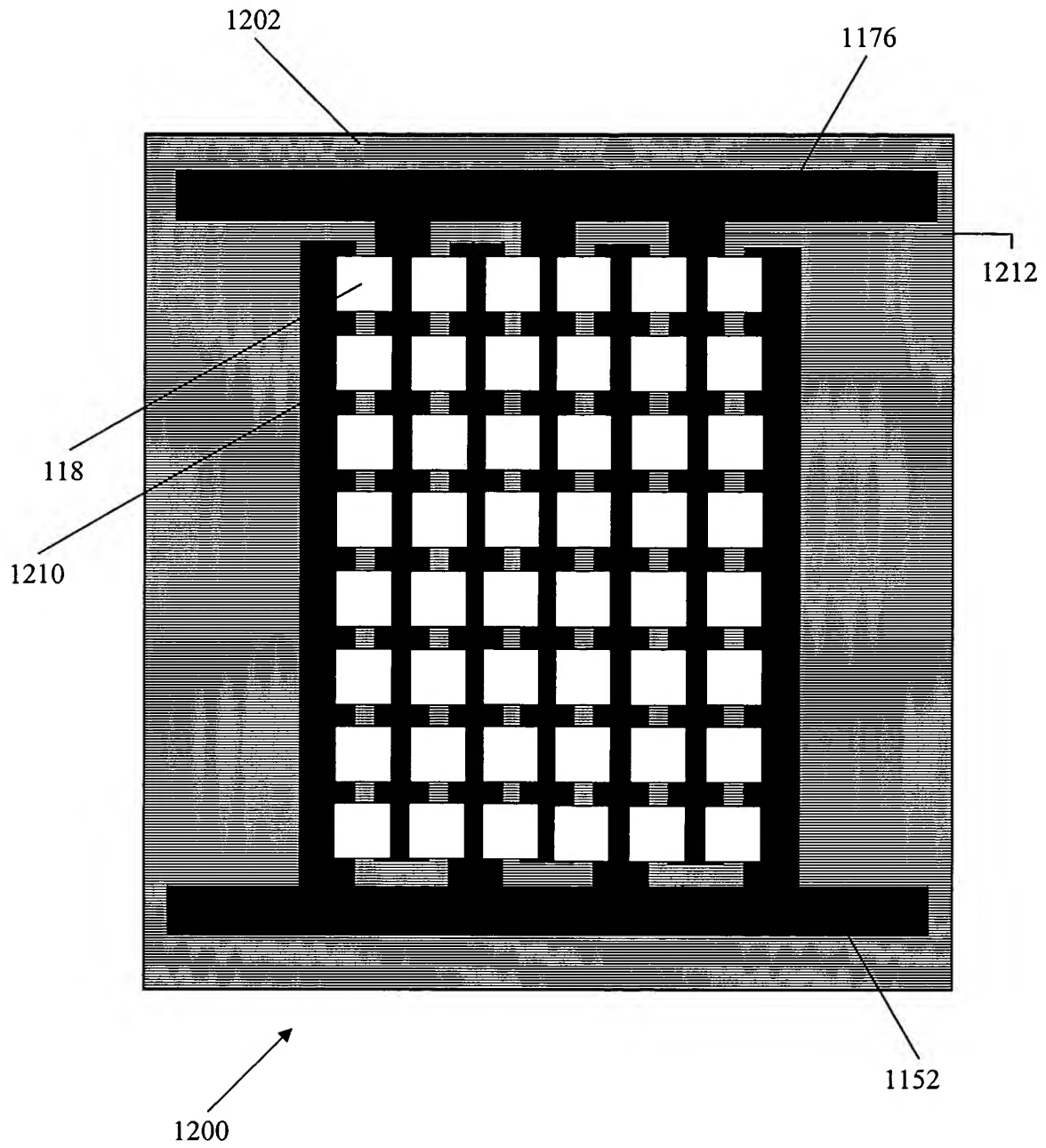


FIG. 39

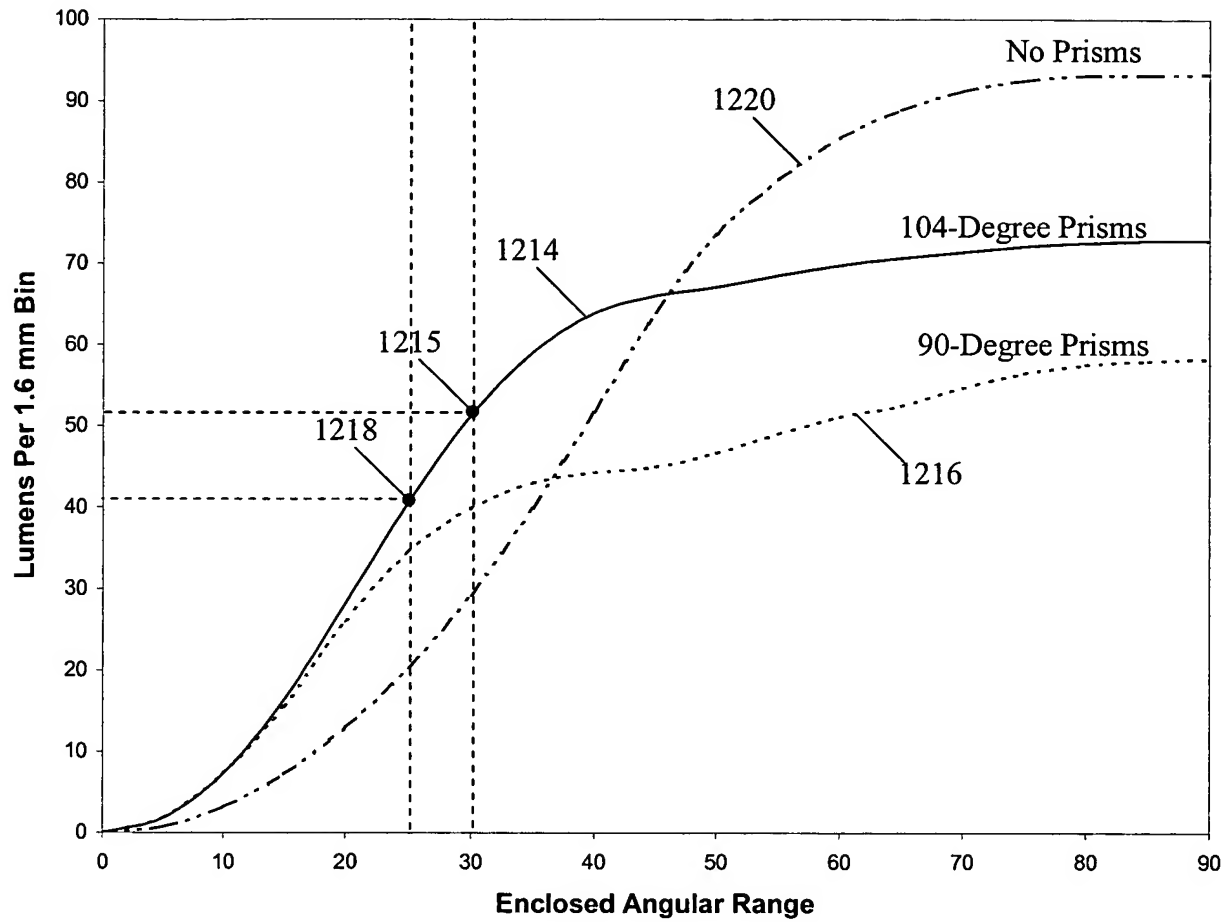


FIG. 40

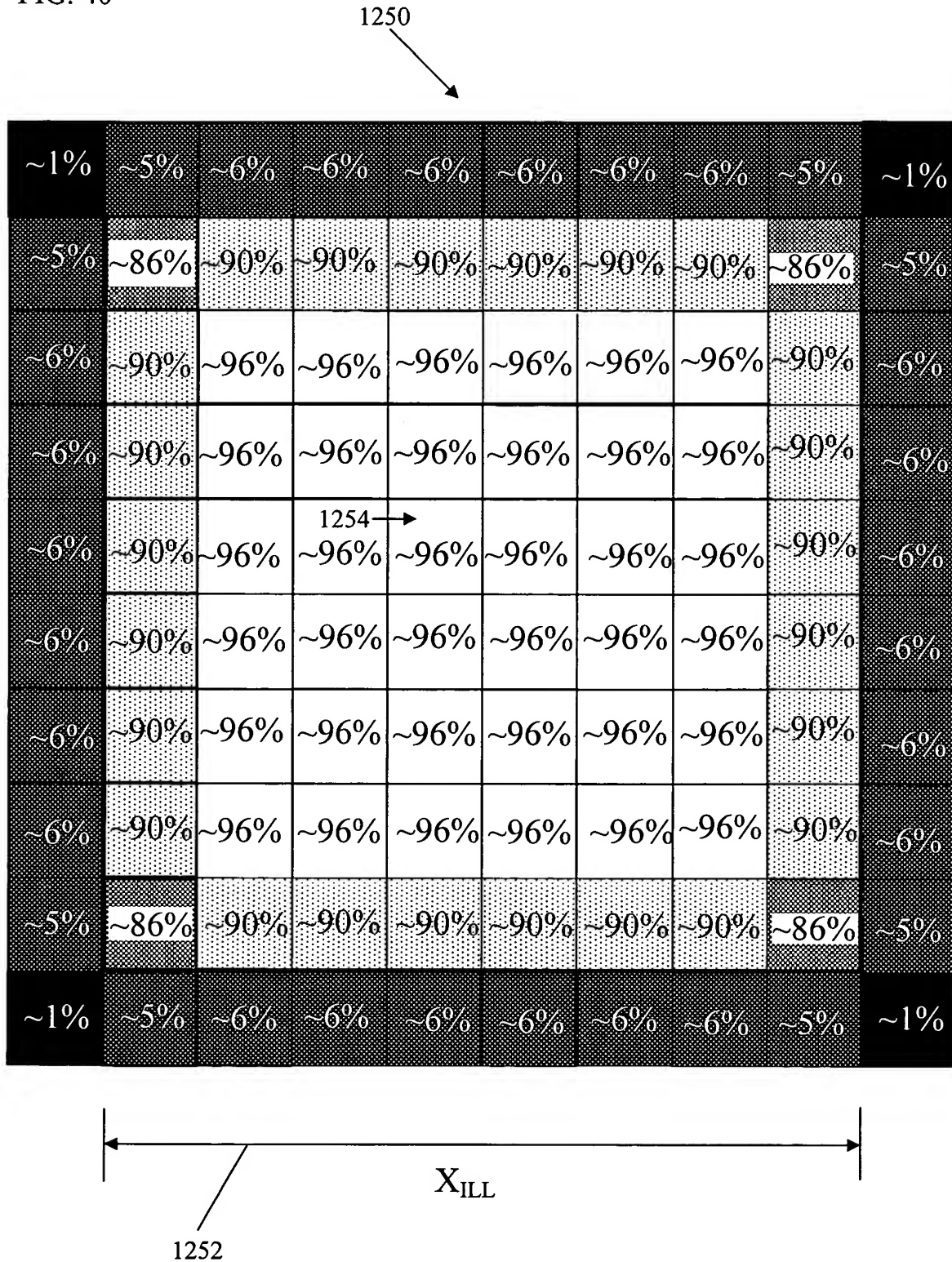


FIG. 41A.

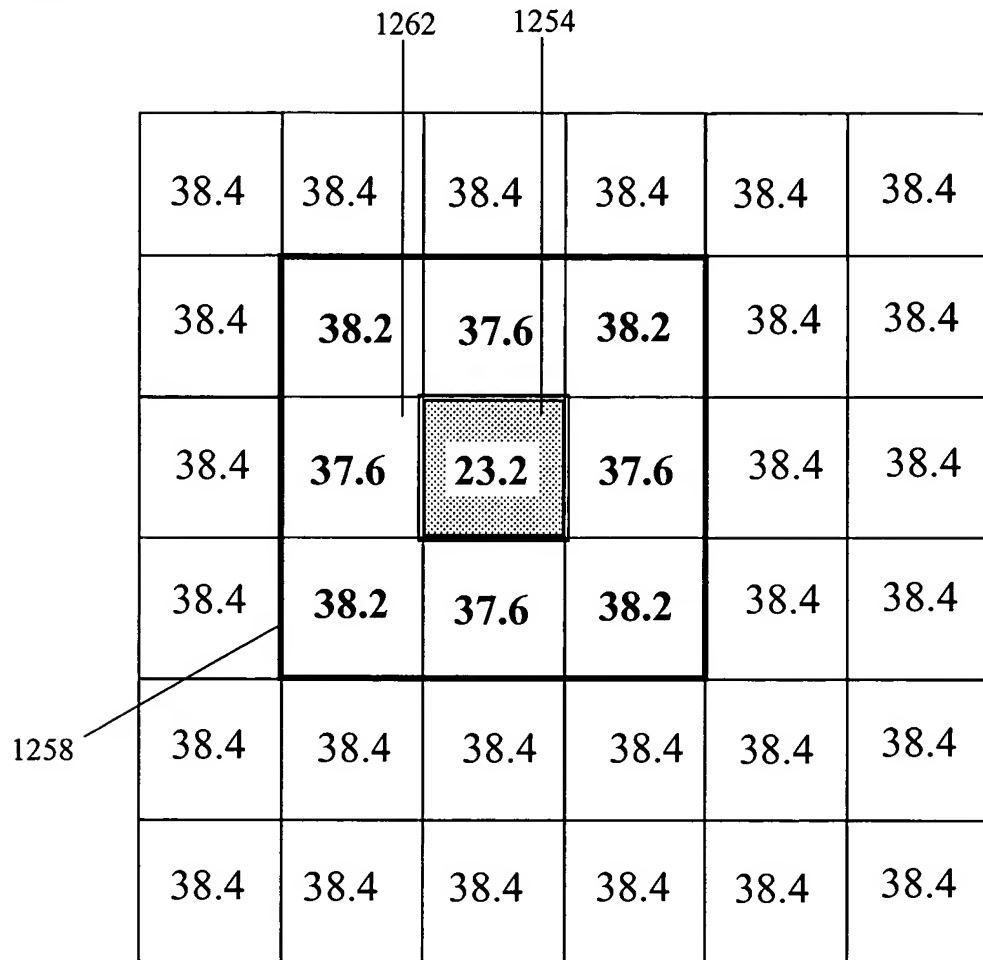


FIG. 41B.

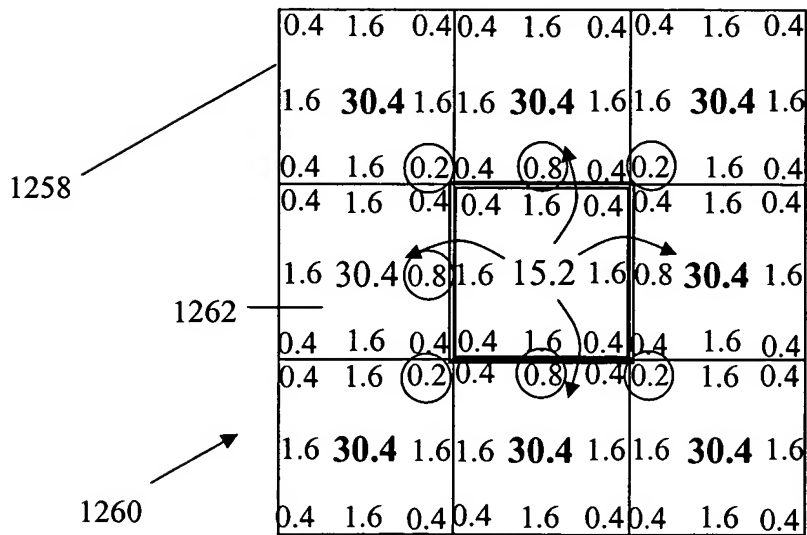


FIG. 42A.

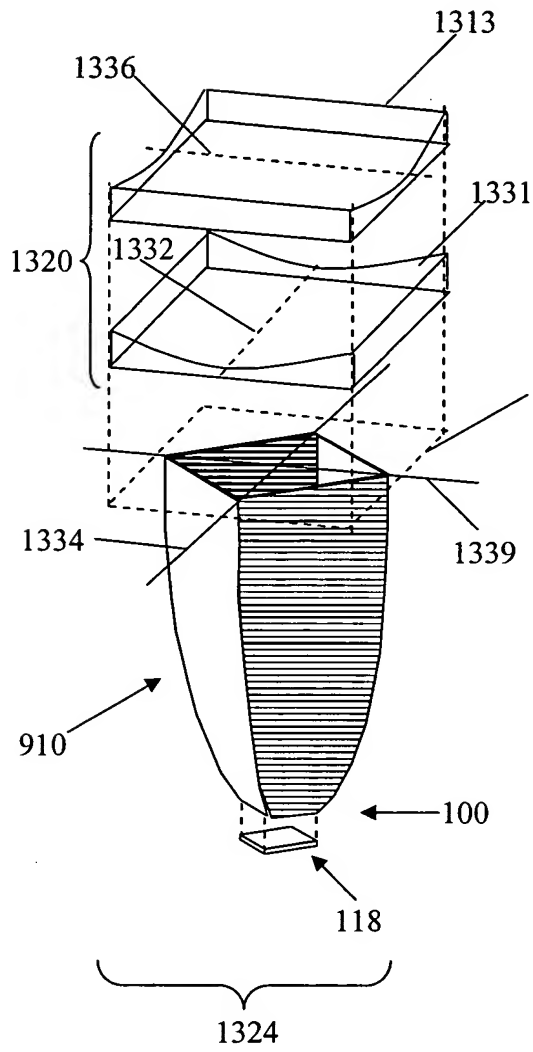


FIG. 42B.

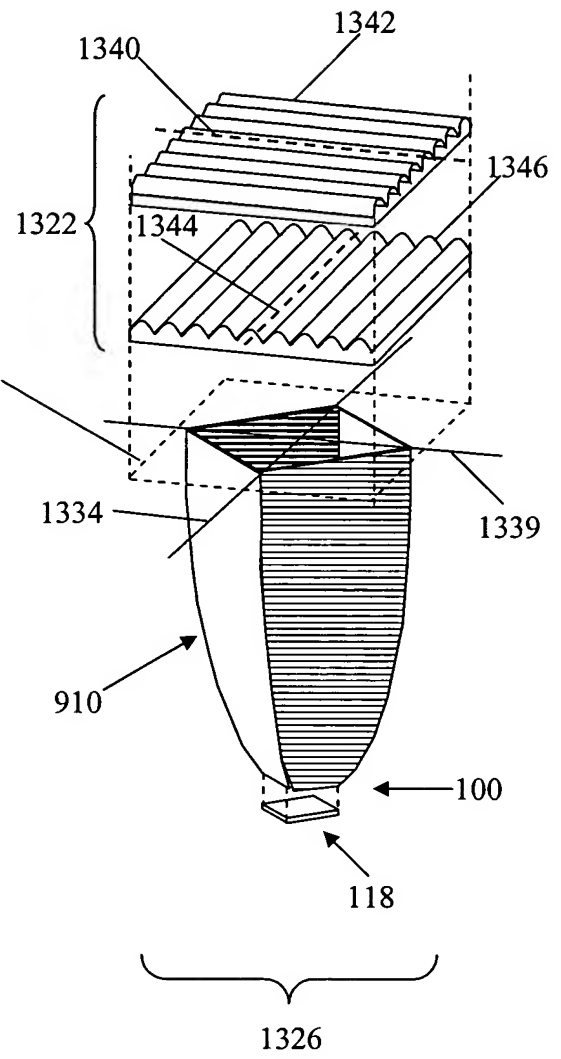


FIG. 43

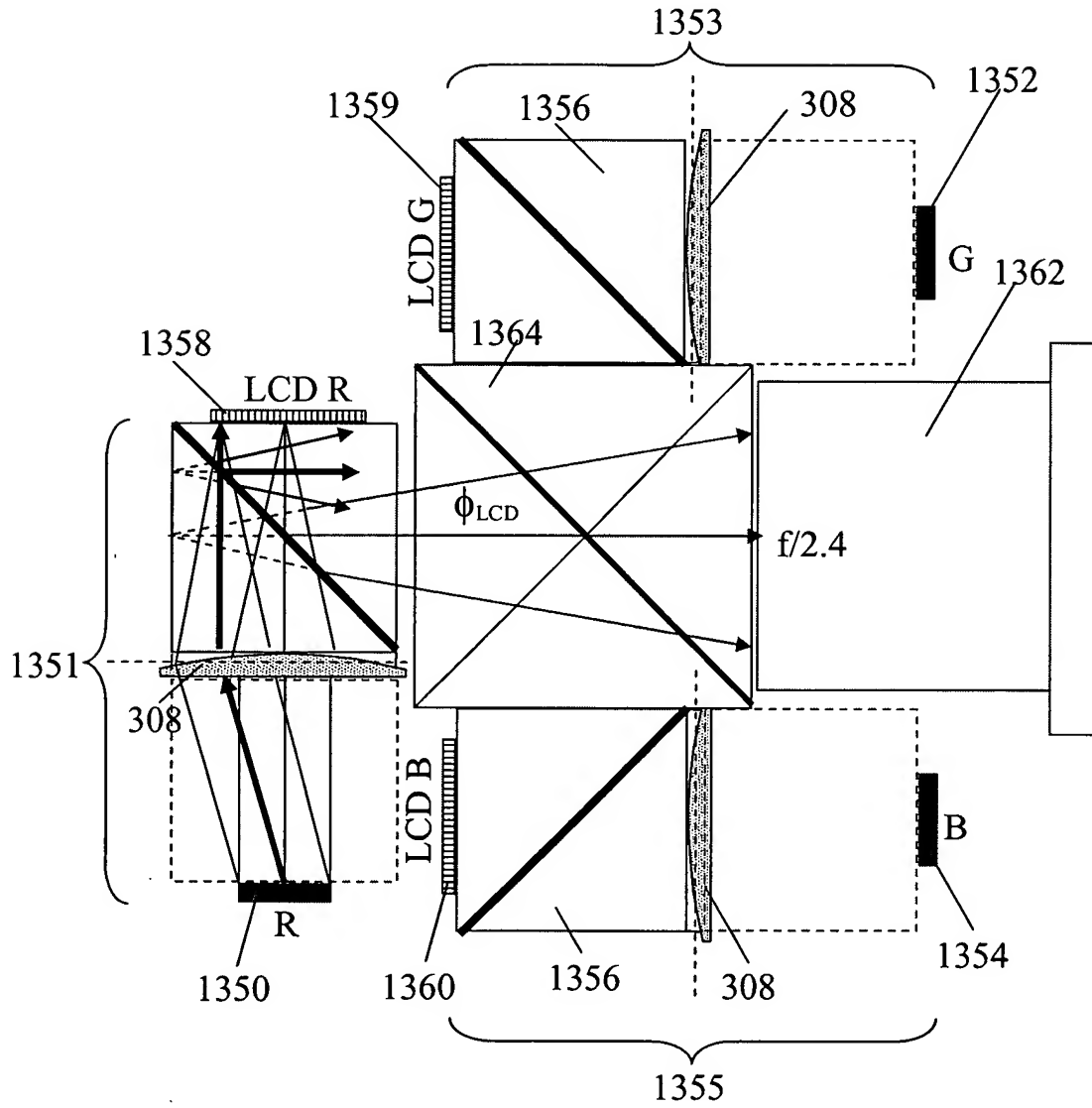


FIG. 44

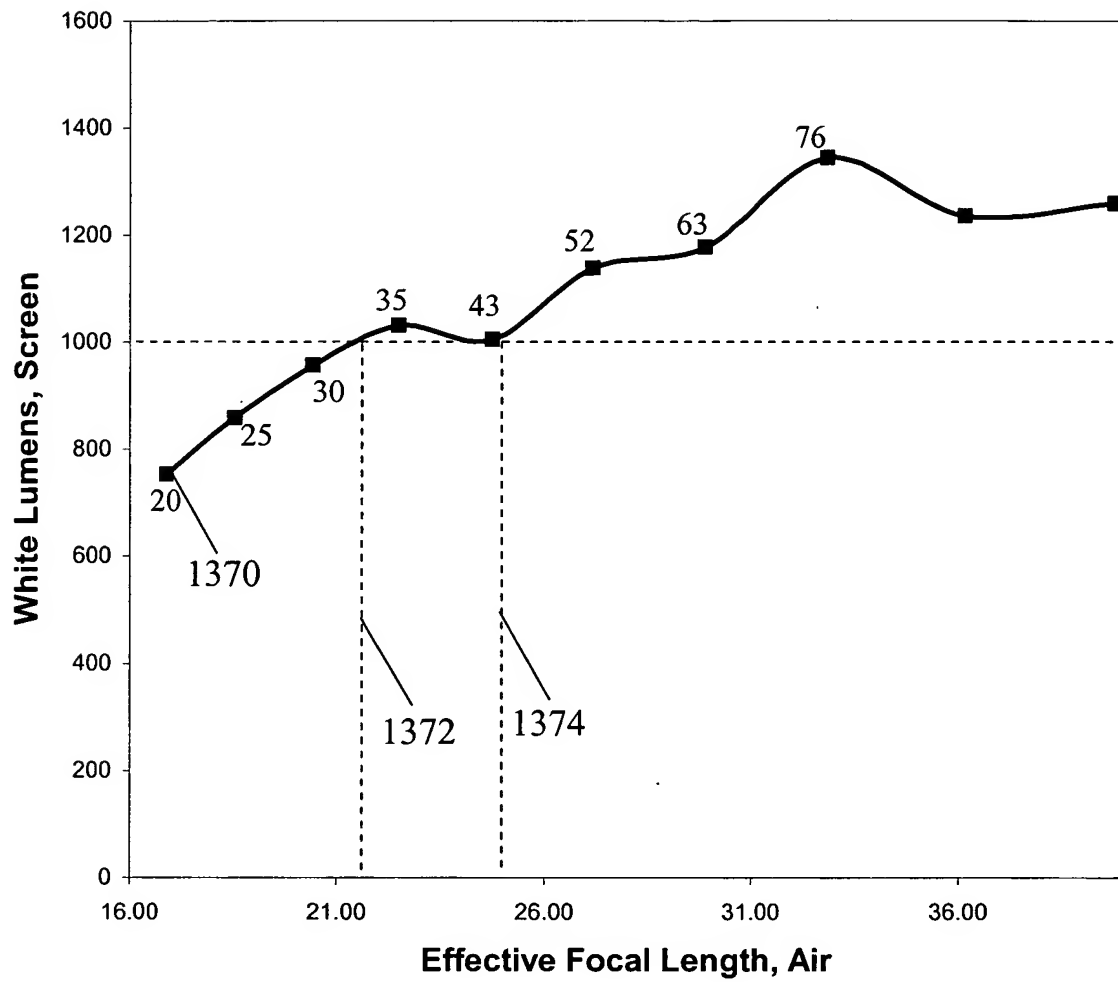
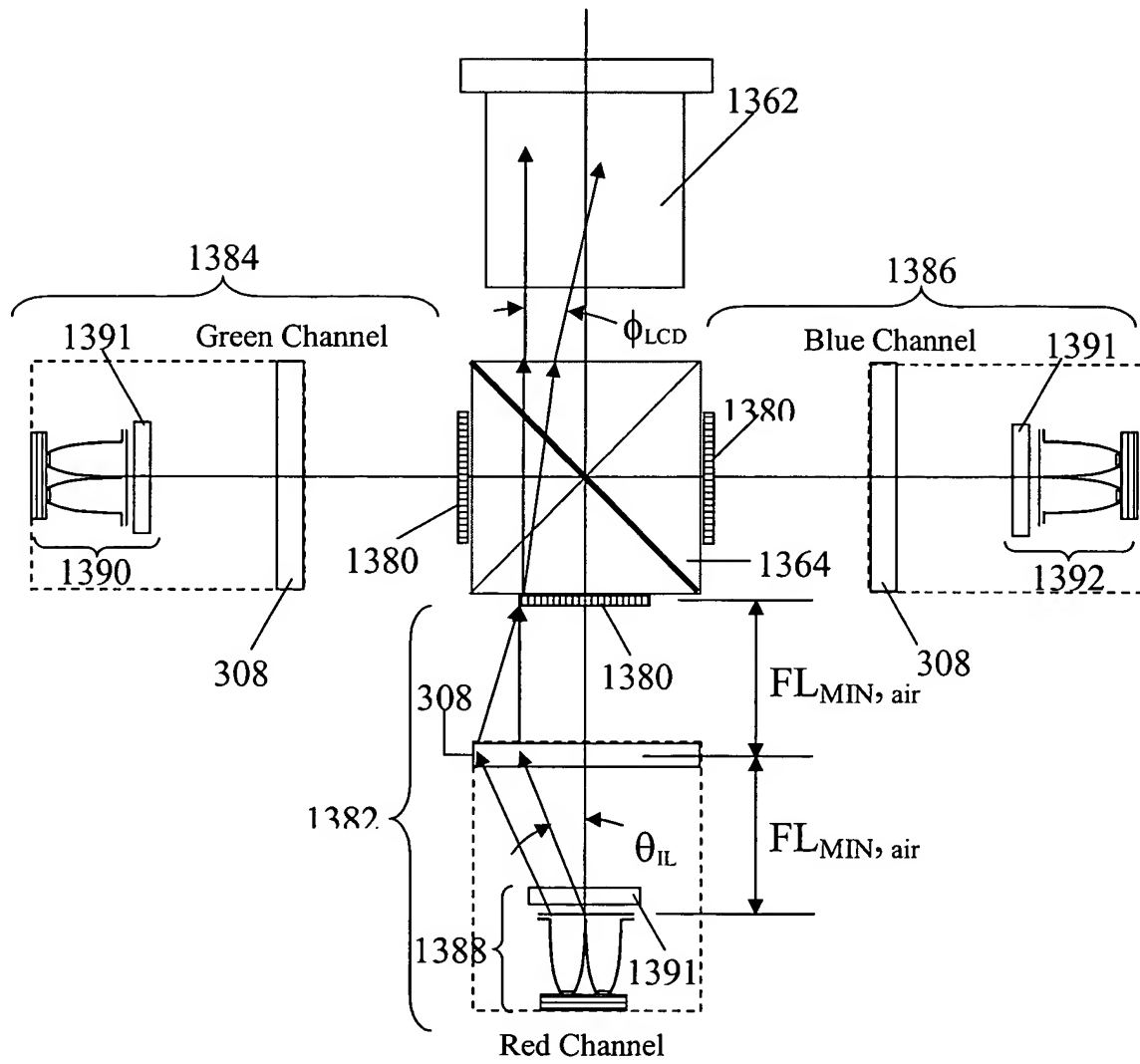


FIG. 45



HIGH DENSITY ILLUMINATION SYSTEM

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040153-0111

FIG. 46

